

## Appendix C.

# Statistical Methodology

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### MAIL LIST MODEL

Classification analysis was performed to predict the probability that an addressee on the 1992 mail list operated a farm, and thereby separated the preliminary mail list into probable farm and probable nonfarm classes. The analysis was used to reduce the preliminary census mail list of 3.78 million records to a final mail list size of 3.55 million records. All 3.55 million addresses on the final mail list received a census of agriculture report form.

Records from the 1987 final census mail list were used to build a 1992 prediction model for the 1992 analysis. Classification and Regression Trees (CART) software analyzed characteristics of known 1987 farm and nonfarm operations to determine which were most useful in predicting farm and nonfarm classes. Record characteristics such as the source of the mail list record, number of source lists on which the record appeared, expected value of agricultural sales, and geographic location were used to separate mail list records into model groups. (Sources included the previous agriculture census mail list, the Internal Revenue Service administrative records, U.S. Department of Agriculture, and special commodity lists.) The proportion of 1987 census farm records in each model group was calculated to provide an estimate of the probability that an addressee in the group operated a farm.

After the model groups were defined, each address record on the 1992 preliminary mail list was assigned to a model group by matching record characteristics to model group characteristics. Records belonging to the groups with the highest farm probability were those more likely to be farms according to the classification tree methodology. The model, followed by analyst reviews, was used to remove 229,700 records from the preliminary mail list (those in model groups with the lowest farm probability), and thereby designated the 3.55 million records with the highest farm probability to receive the census report form. This procedure was used to obtain a more complete census enumeration of farm operations without excessive respondent burden and data collection cost.

### CENSUS SAMPLE DESIGN

Each of the 3.55 million name and address records on the census mail list was designated to receive one of three different types of census report forms. The three forms were the nonsample form, the screener form, and the

sample form. Sections 1 through 20 and 27 through 32 of the sample form are identical to sections on the nonsample form. The sample form, sections 21 through 26, contains additional questions on usage of fertilizers and chemicals, farm production expenditures, value of machinery and equipment, value of land and buildings, and farm-related income. The screener form is identical to the nonsample form with questions added in section 1 to allow quick identification of nonfarm addresses. These three different forms were used to reduce the response burden of the census, while providing reliable information on a large number of data items.

The sample form was mailed to all mail list records in Alaska, Hawaii, and Rhode Island, and to a sample of records in other States selected from the final mail list. Addresses were selected into the sample with certainty (1) if they were expected to have large total value of agricultural products sold or large acreage, (2) if they were multiunit operations (i.e., separate farms in more than one location), (3) if they had other special characteristics, or (4) if they were in a county with less than 100 farms in 1987. Other addresses in counties containing 100 to 199 farms in 1987 were systematically sampled at a rate of 1 in 2, and other addresses in counties containing 200 farms or more in 1987 were systematically sampled at a rate of 1 in 6. This differential sampling scheme was used to provide reliable data for the sample sections of the report form for all counties. When a nonsample large farm was identified during processing, a supplemental form that contained the additional sample data inquiries was mailed.

To determine which mail list records would receive the screener form, all mail list records not designated for the sample were sorted by model group farm probability as specified by the mail list model. The 412,000 mail list records in the model groups with the lowest probability of being farms and with an expected total value of agricultural product sales less than \$25,000 were designated to receive the screener report form. The remaining mail list records received the nonsample report form.

### CENSUS ESTIMATION

The 1992 Census of Agriculture used two types of statistical estimation procedures. These estimation procedures accounted for nonresponse to the data collection and for the sample data collection. These procedures are necessary because some farm operators never respond to

the census despite numerous attempts to contact them, and the estimates for the sample data are based on a sample of farm operators rather than a full enumeration.

## Whole Farm Nonresponse Estimation

A statistical estimation procedure was used to account for nonrespondent farm operators to the census. We excluded large and unique farm operations that received intensive telephone followup during census processing, assuming complete response from them. A stratified systematic sample of remaining census nonrespondents were contacted by enumerators using a computer-assisted telephone interview system. Five sample strata were defined based on expected value of sales, previous census status, and whether the record was identified by the mail list model to receive the screener report form. The nonresponse survey telephone interview was designed to provide sufficient information to determine the farm status of each record.

In situations where the nonresponse survey case could not be contacted, the contact person refused to cooperate, or when no phone number could be obtained, a screener report form was sent by certified mail.

Estimates of the proportion of census nonrespondents that operated farms were made for each stratum in the State using survey results and applied to the total number of census nonrespondents in that stratum. The number of census nonrespondents that operated farms for each county by stratum was then derived. This estimation procedure is based on the assumption that the distribution of farms in a stratum by county is the same for census nonrespondents as for census respondents.

Certain census respondent farms which exhibited "rare" commodities were designated as "ineligible" to represent census nonrespondent farms and were excluded from the nonresponse weighting operation. The procedure explained below was performed with only the eligible respondent cases: Within each stratum in a county, a noninteger nonresponse weight was calculated and assigned to each eligible respondent farm record. The noninteger nonresponse weight is the ratio of the sum of the estimated number of nonrespondent farms from the nonresponse survey and the number of eligible census respondent farms to the number of eligible census respondent farms. Stratum controls were established to ensure that this weight was never greater than 2.0. The noninteger nonresponse weight was used in the calculation of the final weight for the sample items. The noninteger nonresponse weight was randomly rounded to an integer weight of either 1 or 2 for each record for tabulating the complete count items for publication.

Table A quantifies the effect of the nonresponse estimation procedure on selected census data items. The percentages in these tables are the percents of the census values contributed by nonresponse estimation. These indicate the potential for bias in published figures resulting from nonresponse to the census. The estimates provided

in these tables do not reflect the effect of item nonresponse to individual census data items. The effect of item nonresponse is discussed in the Census Nonsampling Error section.

**Table A. Percent of State Totals Contributed by Whole Farm Nonresponse Estimation: 1992**

Item	Percent of total
Farms ..... number ..	10.9
Land in farms ..... acres ..	2.3
Estimated market value of land and buildings <sup>1</sup> ..... \$1,000 ..	2.8
Market value of agricultural products sold ..... \$1,000 ..	2.5
Harvested cropland ..... acres ..	3.4
Corn for grain or seed ..... acres ..	1.7
Wheat for grain ..... acres ..	3.2
Livestock and poultry inventory:	
Cattle and calves ..... number ..	2.8
Hogs and pigs ..... number ..	2.4
Hens and pullets of laying age ..... number ..	.7

<sup>1</sup>Data are based on a sample of farms.

## Sample Estimation

Sample data estimates the population totals that would have resulted from a complete census for the items in sections 21 through 26 of the sample report form. The estimates were obtained from a ratio estimation procedure that resulted in the assignment of a weight to each respondent record containing sample items. For any given county, a sample item total was estimated by multiplying the data items for each farm in the county by the corresponding sample weight and summing over all sample records in the county.

Each respondent sample farm was assigned a sample weight for use in producing estimates for all sample items. For example, if the weight given to a sample farm had the value 6, all sample data items reported by that farm would be multiplied by 6. The weight assigned to a sample certainty farm was 1.

Other than certainty farms, within a county, the ratio estimation procedure for farms was performed in three steps using three variables. The first variable contained eight 1992 total value of agricultural production (TVP) groups. Both the second and third variables, Standard Industrial Classification (SIC) code and farm acreage, contained two groups. The three sets of groups were as follows:

TVP	SIC	Acres
\$1 to \$999	01 All crops	1 to 69
\$1,000 to \$2,499	02 All livestock	70 or more
\$2,500 to \$4,999		
\$5,000 to \$9,999		
\$10,000 to \$24,999		
\$25,000 to \$49,999		
\$50,000 to \$99,999		
\$100,000 or more		

The first step in the estimation procedure was to classify the sample records into 32 mutually exclusive initial post strata formed by the three sets of groups. The total and sample farm counts were expanded to account for nonresponse. Each cell containing sample farm records was assigned an initial sample weight equal to the ratio of the total farm count to the sample farm count. This weight was approximately equal to the inverse of the probability of selecting a farm for the census sample.

The second step in the estimation procedure was to combine, if necessary, the 32 initial post strata to increase the reliability of the ratio estimation procedure. Any stratum that contained less than 10 sample farms after nonresponse adjustment or had a weight greater than two times the mail sample rate was collapsed with another stratum. The mail sample rate was either 2 or 6, depending on whether the county had a 1 in 2 or 1 in 6 sample selection rate. The collapsing occurred within the initial 32 post strata according to a specified collapsing pattern. After the collapsing process was completed, new total farm counts and sample farm counts were computed from each of the final post strata and were used to calculate final sample weights.

The final step consisted of assigning the noninteger final post stratum weight to the sample farm records in each post stratum. The weight is the ratio of total farm count to sample farm count in each final post stratum. The noninteger sample weight, the product of the noninteger final post stratum weight and the nonresponse weight, was randomly rounded to an integer weight for tabulation. If, for example, the final weight for the farms in a particular post stratum was 7.2, then 0.2 or one-fifth of the sample farms in this post stratum were randomly assigned a weight of 8 and the remaining four-fifths received a weight of 7.

## CENSUS SAMPLING ERROR

The sample for the 1992 Census of Agriculture is only one of a large number of possible samples of the same size that could have been selected using the same sample design. Sample refers to the sample for both the nonresponse survey and the selection of farms to receive the sample report forms. Estimates derived from all the possible samples would differ from each other only by random variation.

The standard error or sampling error of a survey estimate is a measure of the variation among the estimates from all possible samples and thus is a measure of the precision with which an estimate from a particular sample approximates the average result of all possible samples. The percent relative standard error of an estimate is defined as 100 times the standard error of the estimate divided by the value of the estimate.

If all possible samples were selected, each of the samples were surveyed under essentially the same conditions, and an estimate and its standard error were calculated from each sample, then:

1. Approximately 90 percent of the intervals from 1.65 standard errors below the estimate to 1.65 standard errors above the estimate would include the average value of all possible samples.
2. Approximately 95 percent of the intervals from 1.96 standard errors below the estimate to 1.96 standard errors above the estimate would include the average value of all possible samples.

The following example illustrates the computations necessary for producing a confidence interval for an estimate. Assume that the estimate of number of farms for a State is 94,382 and the relative standard error of the estimate is .1 percent (0.001). Multiplying 94,382 by 0.001 yields 94, the standard error; therefore, a 90-percent confidence interval is 94,227 to 94,537 (i.e., 94,382 plus or minus 1.65 x 94). If corresponding confidence intervals were constructed for all possible samples of the same size and design, approximately 90 percent of these intervals would contain the figure obtained from a complete enumeration. Similarly, a 95-percent confidence interval is 94,198 to 94,566 (i.e., 94,382 plus or minus 1.96 x 94).

Census items were classified as either complete count or sample count items. Complete count items were asked of all farm operators. Examples of complete count items were land in farms, harvested cropland, livestock inventory and sales, crop acreage, quantities harvested and crop sales, land use, irrigation, government loans and payments, conservation acreage, type of organization, and operator characteristics.

Sample count items were asked only of a sample of farm operators. These items appeared only in sections 21 through 26 of the sample report form. Sample count items were included under the following section headings: commercial fertilizers, chemicals, production expenses, farm machinery and equipment, value of land and buildings, and farm-related income.

Variability, measured as percent relative standard error, in the estimates of complete count items is due only to the nonresponse survey estimation procedure. Variability in the estimates of sample count items is due to both the nonresponse survey estimation procedure and the census sample selection and estimation procedure. Thus, variability in the sample count item estimates tends to be larger than the variability in the complete count item estimates.

Table B provides the generalized reliability estimates of the estimated number of farms in a county reporting complete count and sample count items. The top half of the table shows the percent relative standard error for estimated number of farms in a county reporting a complete count item and the bottom half a sample count item. These are derived from regression equations. Separate regression equations were used for complete count items and sample count items. Each regression equation was fit with the estimated number of farms in a county reporting an item as the independent variable and the relative variance of that estimate as the dependent variable for all counties in the State. For sample count items, only data

from counties sampled at a rate of 1 in 6 are used in the estimation of the regression equation.

**Table B. Reliability Estimates for Number of Farms in a County Reporting a Complete Count Item or Sample Count Item: 1992**

Farms	Relative standard error of estimate (percent)
<b>COMPLETE COUNT ITEM</b>	
Number of farms reporting:	
25	5.5
50	3.5
75	2.5
100	1.8
150	.5
200	.4
300	.4
500	.3
750	.2
1,000	.2
1,500	(X)
2,000	(X)
<b>SAMPLE COUNT ITEM</b>	
Number of farms reporting:	
25	23.0
50	18.0
75	16.0
100	14.8
150	13.6
200	13.0
300	12.3
500	11.7
750	11.4
1,000	11.3
1,500	(X)
2,000	(X)

To illustrate the use of this table, assume that the estimate of the number of farms reporting hogs and pigs for a particular county, as given in county table 15, is 89. Since hogs and pigs is a complete count data item, refer to the first part of table B and use the estimated percent relative standard error of the estimate from the row with farm count equal to or just less than the estimated number of farms, 89. For this example, the percent relative standard error of the estimate comes from the row for 75 farms reporting. For sample count items, follow the same procedure using the second part of table B. For counties with fewer than 100 farms in the 1987 Census of Agriculture, variability in sample count item estimates comes only from nonresponse survey estimation procedures; thus, the estimated relative standard error for a sample count item in these counties may be obtained using the first part of table B.

Table C presents the percent relative standard error of selected State data items for all farms, and table D presents the percent relative standard error of selected State data items for all farms with sales of \$10,000 or more.

Table E presents the percent standard error for percent change in State totals from 1987 to 1992. The general

purpose of the percent change estimate is to provide a relative measure of the difference in a characteristic between censuses. The relative change for a given characteristic is defined as the ratio of the difference of the 1992 and the 1987 estimate for that characteristic to the 1987 estimate. This ratio is multiplied by 100 to obtain the percent change. The percent standard error of a percent change estimate, then, is the standard error of the ratio multiplied by 100.

Table F presents the percent relative standard error for State and county totals for selected data items. The percent relative standard error of the estimate for the same item differs among counties in the State. Reasons for this are differences among counties in (1) the total number of farms, (2) the number of large farms included with certainty, (3) the size classifications of the farms sampled, (4) the amount of nonresponse, (5) the general agricultural characteristics, and (6) the specific characteristic being measured.

## CENSUS NONSAMPLING ERROR

The accuracy of the census counts are affected jointly by sampling errors, described in the previous section, and nonsampling errors. Extensive efforts were made to compile a complete and accurate mail list for the census, to design an understandable report form with instructions, and to minimize processing errors through the use of quality control measures on specific operations. Nonsampling errors arise from incompleteness of the census mail list, duplication in the mail list, incorrect data reporting, errors in editing of reported data, and errors in imputation for missing data. These specific nonsampling errors are further discussed in this section. Evaluation studies will be conducted to measure the extent of certain nonsampling errors such as coverage error and classification error.

## Census Coverage

The main objective of the census of agriculture is to obtain a complete and accurate enumeration of U.S. farms with accurate data on all aspects of the agricultural operation. However, the high cost and availability of resources for enumeration place restrictions on feasible data collection methodologies. The past six agriculture censuses have been conducted by mail enumeration with telephone contact for selected nonrespondents. The completeness of such an enumeration thus depends to a large extent on the coverage of farm operations by the census mail list.

The past five censuses of agriculture have included approximately 91 percent of farms in the United States and approximately 96 percent of agriculture production. Complete enumeration of agricultural operations satisfying the farm definition of \$1,000 or more in agricultural sales is complicated by fluctuations in agricultural operations qualifying for enumeration, the variety of arrangements under which farms are operated, the multiplicity of names used

by an operation, the number of operations in which an operator participates, the accuracy of data reporting, and other factors. A new mail list is compiled for each census because no current single list of agricultural operations is comprehensive.

An evaluation of census coverage has been conducted for each census of agriculture since 1945. The evaluation provides estimates of the completeness of census farm count and major census data items. In addition, the evaluation helps to identify problems in the census enumeration and provide information that can form the basis for improvements. The results of the 1992 Coverage Evaluation program will be published in volume 2, Subject Series (Part 2): Coverage Evaluation.

The evaluation of coverage for the 1992 census was designed to measure four components of error in the census mail list and in farm classification. Mail list error includes two components of error, a measurement of farms not on the census mail list (undercount) and a measurement of farms enumerated more than once in the census (overcount). Classification error includes two components of error, a measurement of farms classified as nonfarms in the census (undercount) and of nonfarms classified as farms in the census (overcount). Classification error arises from reporting and processing errors. Mail list undercount dominates all coverage errors. Net coverage error is defined as the difference between undercounted and overcounted farms. Measurements of these errors, as well as a description of the complete coverage program, will be available in the Coverage Evaluation report.

## **Mail List Coverage**

A major problem with mail enumeration for the census of agriculture is the difficulty encountered in compiling a complete mail list. The percentage of farms included on the census mail list varies considerably by State. Several reasons have contributed to farm operator names not being included on the census mail list—the operation may have been started after the mail list was developed, the operation may be so small as not to appear in any of the agriculture-related source lists used in compiling the census list, or the operation may have been falsely classified as a nonfarm prior to mailout. A large proportion of the farms not included on the mail list are small in both acres and sales of agricultural products.

The 1992 Census of Agriculture Coverage Evaluation used the area segment sample of the 1992 June Agricultural Survey (JAS) of the National Agricultural Statistical Service (NASS) to estimate farms not on the census mail list. The Census Bureau contracted with NASS to augment the JAS data collection. The survey data collected by NASS will be protected under the confidentiality of title 13, U.S. Code. These JAS survey records were matched to the census mail list. Records that did not match were mailed a census of agriculture report form to estimate mail list

coverage. Estimates of farms not on the census mail list are computed using a capture-recapture dual frame estimator which will be described in the Coverage Evaluation report mentioned earlier.

Table G provides coverage evaluation estimates for one component of coverage error associated with the census of agriculture; that is, the error due to farms not on the census mail list. Also provided are estimates of selected characteristics of farms not on the mail list, estimates of characteristics of farms not on the mail list as a percentage of total farms in the State, and the percent relative standard error associated with each estimate. The estimate of total farms in the State is based on census farm count plus the estimated number of farms not on the census mail list. This estimate of total farms in the State was not adjusted for the components of error associated with classification and list duplication error. Estimates of these errors will be made at the regional, rather than the State level, and will be provided in the Coverage Evaluation report mentioned earlier.

## **Respondent and Enumerator Error**

Incorrect or incomplete responses to the mailed census report form or to the questions posed by a telephone enumerator introduce error into the census data. Such incorrect information can lead, in some cases, to incorrect classification of farms. This type of reporting error is measured by the Classification Error Survey discussed later in this section. To reduce all types of reporting error, detailed instructions for completing the report form were provided to each addressee. Questions were phrased as clearly as possible based on tests of the census report form and each respondent's answers were checked for completeness and consistency.

## **Item Nonresponse**

As information flows from data collection to tabulation, various types of item nonresponses are identified on the report forms. Nonresponse to particular questions on the report form that logically should be present may create a type of nonsampling error in both complete count and sample count data. When information from reporting farms is used to edit or impute for item nonresponse, the data may be biased due to characteristics of the nonreporting respondents differing from those reporting the item. Any attempt to correct the data items may not completely reflect this difference either at the element level (individual farm operation) or on the average.

## **Processing Error**

All phases of processing for each report form are sources for the introduction of nonsampling error. The processing of the report forms includes clerical screening for farm activity, computerized check-in of report forms and follow-up of nonrespondents, keying and transmittal of

completed report forms, computerized editing of inconsistent and missing data, review and correction of individual records referred from the computer edit, review and correction of tabulated data, and electronic data processing. These operations undergo a number of quality control checks to ensure as accurate an application as possible, yet some errors are not detected and corrected.

## Classification Error

An evaluation study of classification errors was conducted in the 1992 Census of Agriculture as part of the census coverage evaluation program. A sample of census mail list respondents was selected, and these addresses were reenumerated to determine whether they were a farm or nonfarm. A farm status determination was made based on the evaluation report form and compared with the census farm status which was based on the data reported on the report form. Differences in status were reconciled.

In past censuses, the proportion of farms undercounted due to classification errors was higher for farms with small values of sales. For the 1987 census, the classification error rate was higher for (1) farms with small values of sales, (2) farms with a small number of acres, (3) full-owner farms than part-owner or tenant farms, (4) operators with principal occupation other than farming, and (5) males than females. Results from the 1992 Classification Error Survey will be published in the Coverage Evaluation report.

## EDITING DATA AND IMPUTATION FOR ITEM NONRESPONSE

The Census of Agriculture Complex Edit and Imputation System performs the following functions:

- Ensuring reasonable relationships between/among data items, values for various sizes of farms, and combinations of commodities.
- Ensuring necessary consistencies are present. There are more than 70 distinct consistency requirements.
- Ensuring geographic, legal, and physical constraints are met.

The system must perform these and similar functions for 900 data keycodes for sample records and 850 data keycodes for nonsample records.

For the 1992 Census of Agriculture, as in previous censuses, all reported data were keyed and then edited by computer. The edits were used to determine whether the reports met the minimum criteria to be counted as farms in the census. The complex edit and imputation system provided the basis for deciding to accept, impute (supply), delete, or alter the reported value for each data record item.

Whenever possible, edit imputations, deletions, and changes were based on component or related data on the respondent's report form. For some items, such as operator characteristics, data from the previous census were used when available. Values for other missing or unacceptable reported data items were calculated based on reported quantities and known price parameters.

When these and similar methods were not available and values had to be supplied, the imputation process used information reported for another farm operation in a geographically adjacent area with characteristics similar to those of the farm operation with incomplete data. For example, a farm operation that reported acres of corn harvested, but did not report quantity of corn harvested, was assigned the same bushels of corn per acre harvested as that of the last nearby farm with similar characteristics that reported acceptable yields during that particular execution of the computer edit. The imputation for missing items in each section of the report form was conducted separately; thus, assigned values for one operation could come from more than one respondent.

Prior to the imputation operation, a set of default values and relationships were assigned to the possible imputation variables. The relationships and values varied depending on the item being imputed. For example, different default values were assigned for several standard industrial classification and total value of sales categories when imputing hired farm labor expenses. These values and item relationships for the possible imputation variables were stored in the computer in a series of matrices.

Each execution of the computer edit consisted of records from only one State. The computer records were sorted by reported State and county. For a given execution of the edit, the stored entries in the various matrices were retained in memory only until a succeeding record having acceptable characteristics for some sections of the report form was processed by the computer. Then the acceptable responses of the succeeding operation replaced those previously stored. When a record processed through the edit had unreported or unacceptable data, the record was assigned the last acceptable ratio or response from an operation with a similar set of characteristics. Once each execution of the computer edit for a State was completed, the possible imputation variables were reset to the default values and relationships for subsequent executions.

After the initial computer edit, keyed reports not meeting the census farm definition were reviewed to ensure that the data were keyed correctly. Edit referrals were generated for about 25 percent of the reports included as farms; they were reviewed for keying accuracy to ensure that the computer edit actions were correct. If the results of the computer edit were not acceptable, corrections were made and the record was reedited.

## Table C. Reliability Estimates of State Totals for All Farms: 1992

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Relative standard error of estimate (percent)	Item	Total	Relative standard error of estimate (percent)		
<b>F FARMS AND LAND IN FARMS</b>							
Farms -----	22 821	.9	<b>F FARM PRODUCTION EXPENSES<sup>1</sup></b>				
Land in farms -----	59 642 536	.2	Total farm production expenses -----	farms -- \$1,000--	22 824 .9		
Average size of farm -----	2 613	.9	Average per farm -----	dollars --	1 399 200 .5		
<b>M MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD</b>							
Total sales (see text) -----	22 821	.9	Livestock and poultry purchased -----	farms -- \$1,000--	8 252 1.8		
\$1,000 -----	1 730 237	.3	Feed for livestock and poultry -----	farms -- \$1,000--	191 132 .8		
Average per farm -----	75 818	.9	Commercially mixed formula feeds -----	farms -- \$1,000--	13 555 1.3		
Farms by value of sales:			Seeds, bulbs, plants, and trees -----	farms -- \$1,000--	5 181 2.4		
Less than \$1,000 (see text) -----	2 408	1.5	Commercial fertilizer -----	farms -- \$1,000--	1 374 1.4		
\$1,000 -----	432	2.0	Agricultural chemicals -----	farms -- \$1,000--	85 281 1.2		
\$1,000 to \$2,499 -----	1 665	1.7	Petroleum products -----	farms -- \$1,000--	11 796 1.4		
\$1,000 -----	2 785	1.7	Electricity -----	farms -- \$1,000--	57 078 1.5		
\$2,500 to \$4,999 -----	1 764	1.6	Hired farm labor -----	farms -- \$1,000--	21 591 .9		
\$1,000 -----	6 397	1.6	Contract labor -----	farms -- \$1,000--	108 667 .7		
\$5,000 to \$9,999 -----	2 131	1.6	Repair and maintenance -----	farms -- \$1,000--	17 808 1.1		
\$1,000 -----	15 397	1.6	Customwork, machine hire, and rental of machinery and equipment -----	farms -- \$1,000--	29 742 1.0		
\$10,000 to \$19,999 -----	2 477	1.6	Interest expense -----	farms -- \$1,000--	8 191 1.6		
\$1,000 -----	35 583	1.6	Secured by real estate -----	farms -- \$1,000--	107 632 .8		
\$20,000 to \$24,999 -----	936	1.8	Not secured by real estate -----	farms -- \$1,000--	4 130 2.6		
\$1,000 -----	20 865	1.8	Cash rent -----	farms -- \$1,000--	15 244 3.1		
\$25,000 to \$39,999 -----	1 967	1.6	Property taxes -----	farms -- \$1,000--	19 724 1.0		
\$1,000 -----	62 449	1.6	All other farm production expenses -----	farms -- \$1,000--	113 906 .9		
\$40,000 to \$49,999 -----	1 084	1.4	<b>N NET CASH RETURN FROM AGRICULTURAL SALES FOR THE FARM UNIT (SEE TEXT)<sup>1</sup></b>				
\$1,000 -----	48 239	1.4	Interest expense -----	farms -- \$1,000--	7 393 1.9		
\$50,000 to \$99,999 -----	3 528	1.4	Secured by real estate -----	farms -- \$1,000--	32 543 2.2		
\$1,000 -----	252 596	.9	Not secured by real estate -----	farms -- \$1,000--	13 200 1.3		
\$100,000 to \$249,999 -----	3 511	—	Cash rent -----	farms -- \$1,000--	146 474 1.0		
\$1,000 -----	541 038	—	Property taxes -----	farms -- \$1,000--	8 893 1.7		
\$250,000 to \$499,999 -----	981	—	All other farm production expenses -----	farms -- \$1,000--	100 825 1.2		
\$1,000 -----	327 932	—	<b>G GOVERNMENT PAYMENTS AND OTHER FARM-RELATED INCOME</b>				
\$500,000 or more -----	369	—	Farms with net gains <sup>2</sup> -----	farms -- \$1,000--	6 914 1.9		
\$1,000 -----	416 524	—	Average net gain -----	dollars --	73 717 1.7		
Sales by commodity or commodity group:			Farms with net losses -----	farms -- \$1,000--	21 382 .9		
Crops, including nursery and greenhouse crops -----	12 506	.8	Average net loss -----	dollars --	74 177 .9		
\$1,000 -----	691 860	.3	<b>C COMMODITY CREDIT CORPORATION LOANS</b>				
Grains -----	9 524	.8	Government payments -----	farms -- \$1,000--	22 824 .9		
\$1,000 -----	546 745	.3	Other farm-related income <sup>1</sup> -----	farms -- \$1,000--	333 711 1.4		
Corn for grain -----	185	1.5	Customwork and other agricultural services -----	farms -- \$1,000--	14 621 1.6		
\$1,000 -----	3 519	.9	Gross cash rent or share payments -----	farms -- \$1,000--	10 220 1.7		
Wheat -----	8 373	.8	Forest products and Christmas trees -----	farms -- \$1,000--	106 201 2.1		
\$1,000 -----	439 226	.3	Other farm-related income sources -----	farms -- \$1,000--	10 391 2.7		
Soybeans -----	2	19.2	<b>GOVERNMENT PAYMENTS AND OTHER FARM-RELATED INCOME</b>				
Sorghum for grain -----	1	(D)	Government payments -----	farms -- \$1,000--	10 331 .9		
\$1,000 -----	6	9.9	Other farm-related income <sup>1</sup> -----	farms -- \$1,000--	185 296 .5		
Barley -----	4 922	.7	Customwork and other agricultural services -----	farms -- \$1,000--	6 364 2.2		
\$1,000 -----	95 197	.3	Gross cash rent or share payments -----	farms -- \$1,000--	42 289 2.8		
Oats -----	651	1.3	Forest products and Christmas trees -----	farms -- \$1,000--	1 957 4.3		
\$1,000 -----	2 631	1.5	Other farm-related income sources -----	farms -- \$1,000--	15 461 4.1		
Other grains -----	412	1.0	<b>C COMMODITY CREDIT CORPORATION LOANS</b>				
\$1,000 -----	6 138	.6	Total -----	farms -- \$1,000--	2 675 3.8		
Cotton and cottonseed -----	—	—	<b>GOVERNMENT PAYMENTS AND OTHER FARM-RELATED INCOME</b>				
\$1,000 -----	—	—	Government payments -----	farms -- \$1,000--	18 841 4.8		
Tobacco -----	—	—	Other farm-related income <sup>1</sup> -----	farms -- \$1,000--	326 9.0		
\$1,000 -----	—	—	Customwork and other agricultural services -----	farms -- \$1,000--	4 249 8.1		
Hay, silage, and field seeds -----	4 878	1.0	Gross cash rent or share payments -----	farms -- \$1,000--	2 801 3.2		
\$1,000 -----	61 720	.6	Forest products and Christmas trees -----	farms -- \$1,000--	3 739 5.1		
Vegetables, sweet corn, and melons -----	102	2.9	<b>GOVERNMENT PAYMENTS AND OTHER FARM-RELATED INCOME</b>				
\$1,000 -----	806	4.8	Government payments -----	farms -- \$1,000--	1 614 .8		
Fruits, nuts, and berries -----	134	2.9	Other farm-related income <sup>1</sup> -----	farms -- \$1,000--	44 744 .4		
\$1,000 -----	984	2.7	Customwork and other agricultural services -----	farms -- \$1,000--			
Nursery and greenhouse crops -----	184	2.3	Gross cash rent or share payments -----	farms -- \$1,000--			
\$1,000 -----	11 784	.9	Forest products and Christmas trees -----	farms -- \$1,000--			
Other crops -----	639	.9	Other farm-related income sources -----	farms -- \$1,000--			
\$1,000 -----	69 821	.3	<b>GOVERNMENT PAYMENTS AND OTHER FARM-RELATED INCOME</b>				
Livestock, poultry, and their products -----	15 710	.8	Government payments -----	farms -- \$1,000--			
\$1,000 -----	1 038 377	.2	Other farm-related income <sup>1</sup> -----	farms -- \$1,000--			
Poultry and poultry products -----	403	1.8	Customwork and other agricultural services -----	farms -- \$1,000--			
\$1,000 -----	7 937	.5	Gross cash rent or share payments -----	farms -- \$1,000--			
Dairy products -----	324	1.2	Forest products and Christmas trees -----	farms -- \$1,000--			
\$1,000 -----	39 324	.3	Other farm-related income sources -----	farms -- \$1,000--			
Cattle and calves -----	13 628	.8	<b>GOVERNMENT PAYMENTS AND OTHER FARM-RELATED INCOME</b>				
\$1,000 -----	909 409	.2	Government payments -----	farms -- \$1,000--			
Hogs and pigs -----	1 030	1.3	Other farm-related income <sup>1</sup> -----	farms -- \$1,000--			
\$1,000 -----	33 339	.5	Customwork and other agricultural services -----	farms -- \$1,000--			
Sheep, lambs, and wool -----	2 609	1.1	Gross cash rent or share payments -----	farms -- \$1,000--			
\$1,000 -----	31 440	.6	Forest products and Christmas trees -----	farms -- \$1,000--			
Other livestock and livestock products (see text) -----	2 071	1.1	Other farm-related income sources -----	farms -- \$1,000--			
\$1,000 -----	16 928	1.1	<b>GOVERNMENT PAYMENTS AND OTHER FARM-RELATED INCOME</b>				
Value of agricultural products sold directly to individuals for human consumption (see text) -----	774	1.5	Government payments -----	farms -- \$1,000--			
\$1,000 -----	2 179	1.7	Other farm-related income <sup>1</sup> -----	farms -- \$1,000--			

See footnotes at end of table.

**Table C. Reliability Estimates of State Totals for All Farms: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Relative standard error of estimate (percent)	Item	Total	Relative standard error of estimate (percent)
<b>LAND IN FARMS ACCORDING TO USE</b>					
Total cropland	farms--	19 442	All operators	farms--	22 821
	acres--	17 494 553		acres--	59 642 536
Harvested cropland	farms--	17 100	Full owners	farms--	10 763
	acres--	8 199 296		acres--	14 788 515
Farms by acres harvested:			Part owners	farms--	.9
1 to 9 acres	farms--	1 006		acres--	9 039
	acres--	4 626	Tenants	farms--	38 549 948
10 to 19 acres	farms--	984		acres--	3 019
	acres--	13 133		acres--	6 304 073
20 to 29 acres	farms--	802			
	acres--	18 168			
30 to 49 acres	farms--	1 166			
	acres--	43 144			
50 to 99 acres	farms--	1 781			
	acres--	124 468			
100 to 199 acres	farms--	2 365			
	acres--	330 770			
200 to 499 acres	farms--	3 734			
	acres--	1 206 447			
500 to 999 acres	farms--	2 810			
	acres--	1 971 511			
1,000 acres or more	farms--	2 452			
	acres--	4 487 029			
Cropland:					
Pasture or grazing only	farms--	7 218			
	acres--	1 551 277			
Other cropland	farms--	10 313			
	acres--	7 743 980			
Total woodland	farms--	3 236			
	acres--	1 965 656			
Pastureland and rangeland other than cropland and woodland pastured	farms--	13 129			
	acres--	39 294 203			
Land in house lots, ponds, roads, wasteland, etc.	farms--	11 636			
	acres--	888 124			
Irrigated land	farms--	8 883			
	acres--	1 978 167			
Acres irrigated:					
1 to 9 acres	farms--	970			
	acres--	4 490			
10 to 49 acres	farms--	2 391			
	acres--	59 573			
50 to 99 acres	farms--	1 314			
	acres--	91 836			
100 to 199 acres	farms--	1 454			
	acres--	203 316			
200 to 499 acres	farms--	1 767			
	acres--	548 978			
500 to 999 acres	farms--	.6			
	acres--	681			
1,000 acres or more	farms--	449 100			
	acres--	306			
	acres--	620 874			
Harvested cropland irrigated	farms--	7 688			
	acres--	1 513 042			
Pasture and other land irrigated	farms--	3 622			
	acres--	465 125			
Land under federal acreage reduction programs:					
Diverted under annual commodity programs	farms--	4 493			
	acres--	219 861			
Conservation Reserve or Wetlands Reserve Programs	farms--	3 957			
	acres--	2 159 530			
<b>VALUE OF LAND AND BUILDINGS<sup>1</sup></b>					
Estimated market value of land and buildings	farms--	22 824			
\$1,000--					
Average per farm	dollars--	13 577 573			
Average per acre	dollars--	594 881			
		227			
<b>VALUE OF MACHINERY AND EQUIPMENT<sup>1</sup></b>					
Estimated market value of all machinery and equipment	farms--	22 808			
\$1,000--					
Average per farm	dollars--	1 516 085			
		66 472			
<b>AGRICULTURAL CHEMICALS<sup>1</sup></b>					
Commercial fertilizer	farms--	11 327			
acres on which used--		5 428 561			
<b>TENURE OF OPERATOR</b>					
All operators	farms--	22 821			
	acres--	59 642 536			
Full owners	farms--	10 763			
	acres--	14 788 515			
Part owners	farms--	.9			
	acres--	9 039			
Tenants	farms--	38 549 948			
	acres--	3 019			
	acres--	6 304 073			
<b>OWNED AND RENTED LAND</b>					
Land owned	farms--	19 959			
	acres--	42 468 872			
Owned land in farms	farms--	19 802			
	acres--	37 911 555			
Land rented or leased from others	farms--	12 162			
	acres--	22 149 751			
Rented or leased land in farms	farms--	26 739			
	landlords--	12 058			
Land rented or leased to others	farms--	2 678			
	acres--	4 976 087			
<b>OPERATOR CHARACTERISTICS</b>					
Operators by place of residence:					
On farm operated					
		16 982			
Not on farm operated					
		4 103			
Not reported					
		1 736			
Operators by principal occupation:					
Farming					
		16 006			
Other					
		6 815			
Operators by days worked off farm:					
Any					
		9 838			
200 days or more					
		5 261			
Operators by sex:					
Male	farms--	20 995			
	acres--	56 760 584			
Female	farms--	1 826			
	acres--	2 881 952			
Average age of operator	years--				
		52.9			
<b>FARMS BY TYPE OF ORGANIZATION</b>					
Individual or family (sole proprietorship)	farms--	17 723			
	acres--	29 917 236			
Partnership	farms--	2 046			
	acres--	7 180 806			
Corporation:					
Family held	farms--	2 669			
	acres--	17 074 602			
More than 10 stockholders	farms--	.6			
	acres--	76			
10 or less stockholders	farms--	1.6			
	acres--	2 593			
Other than family held	farms--	.1			
	acres--	129			
More than 10 stockholders	farms--	2.0			
	acres--	849 452			
10 or less stockholders	farms--	.3			
	acres--	22			
Other—cooperative, estate or trust, institutional, etc.	farms--	2.4			
	acres--	107			
		254			
		4 620 440			
<b>HIRED FARM LABOR</b>					
Hired workers by days worked:					
150 days or more	farms--	4 202			
	workers--	8 669			
Less than 150 days	farms--	1.9			
	workers--	6 921			
		19 168			
<b>INJURIES AND DEATHS</b>					
Farm-related injuries:					
Operator and family members	farms--	305			
	number--	342			
Hired workers	farms--	1.5			
	number--	319			
		442			
Farm-related deaths:					
Operator and family members	farms--	.6			
	number--	7			
Hired workers	farms--	5.9			
	number--	3			
		3			

See footnotes at end of table.

## C-8 APPENDIX C

## 1992 CENSUS OF AGRICULTURE

**Table C. Reliability Estimates of State Totals for All Farms: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Relative standard error of estimate (percent)	Item	Total	Relative standard error of estimate (percent)		
<b>F FARMS BY SIZE</b>							
1 to 9 acres	farms ..	1 209	Cattle and calves inventory	farms ..	13 813		
	acres..	4 163	number ..	2 645 916	.8		
10 to 49 acres	farms ..	2 804	Beef cows	farms ..	12 366		
	acres..	73 002	number ..	1 506 445	.8		
50 to 69 acres	farms ..	628	Milk cows	farms ..	1 092		
	acres..	36 113	number ..	22 409	.3		
70 to 99 acres	farms ..	818	Cattle and calves sold	farms ..	13 628		
	acres..	66 712	number ..	1 677 932	.8		
100 to 139 acres	farms ..	745	Hogs and pigs inventory	farms ..	\$1,000 ..		
	acres..	85 404	number ..	909 409	.2		
140 to 179 acres	farms ..	870	Hogs and pigs sold	farms ..	1 056		
	acres..	137 558	number ..	222 966	.5		
180 to 219 acres	farms ..	567	Sheep and lambs of all ages inventory	farms ..	1 030		
	acres..	112 123	number ..	363 440	.3		
220 to 259 acres	farms ..	400	Sheep and lambs sold	farms ..	\$1,000 ..		
	acres..	95 162	number ..	33 339	.5		
260 to 499 acres	farms ..	1 997	Horses and ponies inventory	farms ..	2 507		
	acres..	726 497	number ..	634 361	1.1		
500 to 999 acres	farms ..	2 521	Horses and ponies sold	farms ..	2 580		
	acres..	1 817 999	number ..	519 200	.6		
1,000 to 1,999 acres	farms ..	3 040	<b>P Poultry</b>				
	acres..	4 417 544	Chickens 3 months old or older inventory	farms ..	1 138		
2,000 acres or more	farms ..	7 222	number ..	634 955	.3		
	acres..	52 070 259	Hens and pullets of laying age	farms ..	1 127		
			number ..	555 953	.4		
<b>F FARMS BY STANDARD INDUSTRIAL CLASSIFICATION</b>							
Cash grains (011)	farms ..	5 822	Broilers and other meat-type chickens sold	farms ..	47		
	acres..	15 238 670	number ..	47 505	4.1		
Field crops, except cash grains (013)	farms ..	2 112	<b>C CROPS HARVESTED</b>				
	acres..	1 329 889	Corn for grain or seed	farms ..	222		
Vegetables and melons (016)	farms ..	41	acres ..	18 240	.8		
	acres..	3 311	bushels ..	1 864 341	.7		
Fruits and tree nuts (017)	farms ..	28.1	acres ..	489	.8		
	acres..	6 677	tons, green ..	42 337	.5		
Horticultural specialties (018)	farms ..	143	Wheat for grain	farms ..	761 758		
	acres..	5 890	acres ..	8 395	.5		
General farms, primarily crop (019)	farms ..	703	bushels ..	4 885 520	.4		
	acres..	920 602	acres ..	142 893 032	.4		
Livestock, except dairy, poultry, and animal specialties (021)	farms ..	11 753	Barley for grain	farms ..	5 971		
	acres..	37 856 710	acres ..	1 168 663	.7		
Dairy farms (024)	farms ..	187	bushels ..	47 381 536	.3		
	acres..	104 153	acres ..	1 590	.8		
Poultry and eggs (025)	farms ..	45	Oats for grain	farms ..	82 492		
	acres..	8 404	acres ..	4 485 707	.6		
Animal specialties (027)	farms ..	1 209	Dry edible beans, excluding dry limas	farms ..	84		
	acres..	1 106 208	acres ..	4 732	2.4		
General farms, primarily livestock and animal specialties (029)	farms ..	583	Irish potatoes	farms ..	89 866		
	acres..	3 062 022	cwt ..	125	1.7		
			acres ..	9 153	.4		
			cwt ..	2 780 717	.4		
			Sugar beets for sugar	farms ..	476		
			acres ..	56 994	1.0		
			tons ..	1 274 952	.4		

<sup>1</sup>Data are based on a sample of farms.

<sup>2</sup>Farms with total production expenses equal to market value of agricultural products sold are included as farms with gains of less than \$1,000.

**Table D. Reliability Estimates of State Totals for Farms With Sales of \$10,000 or More:  
1992**

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Relative standard error of estimate (percent)	Item	Total	Relative standard error of estimate (percent)			
<b>F FARMS AND LAND IN FARMS</b>								
Farms ----- number	14 853	.8	Total farm production expenses ----- farms	15 054	.9			
Land in farms ----- acres	53 644 226	.2	\$1,000-----	1 347 640	.4			
Average size of farm ----- acres	3 612	.9	Average per farm ----- dollars	89 520	1.0			
<b>M MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD</b>								
Total sales (see text) ----- farms	14 853	.8	Livestock and poultry purchased ----- farms	6 473	1.8			
\$1,000-----	1 705 226	.3	\$1,000-----	187 258	.8			
Average per farm ----- dollars	114 807	.9	Feed for livestock and poultry ----- farms	9 755	1.3			
Farms by value of sales:			Commercial mixed formula feeds ----- farms	138 089	.8			
\$10,000 to \$19,999 ----- farms	2 477	1.6	\$1,000-----	3 964	2.4			
\$1,000-----	35 583	1.6	\$1,000-----	30 211	1.4			
\$20,000 to \$24,999 ----- farms	936	1.8	Seeds, bulbs, plants, and trees ----- farms	8 073	1.5			
\$1,000-----	20 865	1.8	\$1,000-----	27 934	1.2			
\$25,000 to \$39,999 ----- farms	1 967	1.6	Commercial fertilizer ----- farms	9 175	1.4			
\$1,000-----	62 449	1.6	\$1,000-----	83 478	1.2			
\$40,000 to \$49,999 ----- farms	1 084	1.4	Agricultural chemicals ----- farms	9 686	1.3			
\$1,000-----	48 239	1.4	Petroleum products ----- farms	14 901	1.5			
\$50,000 to \$99,999 ----- farms	3 528	.9	\$1,000-----	103 092	.7			
\$1,000-----	252 596	.9	Electricity ----- farms	12 944	1.1			
\$100,000 to \$249,999 ----- farms	3 511	-	\$1,000-----	27 723	1.1			
\$1,000-----	541 038	-	Hired farm labor ----- farms	6 899	1.5			
\$250,000 to \$499,999 ----- farms	981	-	\$1,000-----	106 722	.8			
\$1,000-----	327 932	-	Contract labor ----- farms	3 486	2.6			
\$500,000 or more ----- farms	369	-	\$1,000-----	14 626	3.2			
\$1,000-----	416 524	-	Repair and maintenance ----- farms	14 074	1.0			
Sales by commodity or commodity group:			\$1,000-----	106 988	.9			
Crops, including nursery and greenhouse crops ----- farms	9 960	.8	Customwork, machine hire, and rental of machinery and equipment ----- farms	6 061	1.9			
\$1,000-----	683 864	.3	\$1,000-----	31 472	2.3			
Grains ----- farms	8 659	.8	Interest expense ----- farms	10 463	1.3			
\$1,000-----	543 246	.3	\$1,000-----	139 732	1.0			
Corn for grain ----- farms	173	1.5	Secured by real estate ----- farms	7 118	1.6			
\$1,000-----	3 474	.9	\$1,000-----	95 483	1.2			
Wheat ----- farms	7 737	.8	Not secured by real estate ----- farms	6 766	1.8			
\$1,000-----	436 660	.3	\$1,000-----	44 249	1.4			
Soybeans ----- farms	2	19.2						
\$1,000-----	(D)							
Sorghum for grain ----- farms	4	8.3	<b>NET CASH RETURN FROM AGRICULTURAL SALES FOR THE FARM UNIT (SEE TEXT)<sup>1</sup></b>					
\$1,000-----	(D)		All farms ----- number	15 054	.9			
Barley ----- farms	4 606	.7	\$1,000-----	360 174	1.2			
\$1,000-----	94 433	.3	Average per farm ----- dollars	23 925	1.5			
Oats ----- farms	581	1.2						
\$1,000-----	2 522	1.5	Farms with net gains <sup>2</sup> ----- number	10 760	1.3			
Other grains ----- farms	407	1.0	\$1,000-----	436 001	.9			
\$1,000-----	(D)		Average net gain ----- dollars	40 521	1.5			
Cotton and cottonseed ----- farms	-	-						
\$1,000-----	-	-	Farms with net losses ----- number	4 294	2.5			
Tobacco ----- farms	-	-	\$1,000-----	75 826	2.5			
\$1,000-----	-	-	Average net loss ----- dollars	17 659	3.6			
Hay, silage, and field seeds ----- farms	3 235	.9						
\$1,000-----	57 814	.6	<b>GOVERNMENT PAYMENTS AND OTHER FARM-RELATED INCOME</b>					
Vegetables, sweet corn, and melons ----- farms	53	3.4	Government payments ----- farms	8 560	.8			
\$1,000-----	(D)		\$1,000-----	166 968	.4			
Fruits, nuts, and berries ----- farms	24	5.9	Other farm-related income <sup>1</sup> ----- farms	4 812	2.3			
\$1,000-----	(D)		\$1,000-----	37 307	3.0			
Nursery and greenhouse crops ----- farms	122	2.5	Customwork and other agricultural services ----- farms	1 535	4.5			
\$1,000-----	11 582	.9	\$1,000-----	14 537	4.2			
Other crops ----- farms	619	.9	Gross cash rent or share payments ----- farms	1 798	4.4			
\$1,000-----	69 771	.3	\$1,000-----	15 801	5.4			
Livestock, poultry, and their products ----- farms	11 177	.8	Forest products and Christmas trees ----- farms	203	9.6			
\$1,000-----	1 021 361		\$1,000-----	3 599	8.6			
Poultry and poultry products ----- farms	200	1.9	Other farm-related income sources ----- farms	2 464	3.2			
\$1,000-----	7 855	.5	\$1,000-----	3 370	4.8			
Dairy products ----- farms	291	1.1						
\$1,000-----	39 267	.3						
Cattle and calves ----- farms	10 483	.8						
\$1,000-----	897 047	.2						
Hogs and pigs ----- farms	743	1.3						
\$1,000-----	32 828	.5						
Sheep, lambs, and wool ----- farms	1 660	1.0						
\$1,000-----	29 196	.6						
Other livestock and livestock products (see text) ----- farms	1 171	1.0						
\$1,000-----	15 168	1.2						
Value of agricultural products sold directly to individuals for human consumption (see text) ----- farms	366	1.7	<b>COMMODITY CREDIT CORPORATION LOANS</b>					
\$1,000-----	1 760	2.0	Total ----- farms	1 569	.8			
			\$1,000-----	44 654	.4			

See footnotes at end of table.

## C-10 APPENDIX C

## 1992 CENSUS OF AGRICULTURE

**Table D. Reliability Estimates of State Totals for Farms With Sales of \$10,000 or More:  
1992—Con.**

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Relative standard error of estimate (percent)	Item	Total	Relative standard error of estimate (percent)		
<b>LAND IN FARMS ACCORDING TO USE</b>							
Total cropland	farms --	13 655	.8	Individual or family (sole proprietorship) farms --	10 695	1.0	
	acres --	16 387 596	.4	acres --	27 637 039	.3	
Harvested cropland	farms --	12 911	.8	Partnership	1 564	.9	
	acres --	8 010 877	.4	Corporation	6 860 928	.2	
Cropland:				Family held	2 376	.5	
Pasture or grazing only	farms --	4 444	.9	acres --	16 709 975	.1	
	acres --	1 297 901	.8	More than 10 stockholders	70	1.4	
Total woodland	farms --	1 899	.8	10 or less stockholders	2 306	.5	
	acres --	1 619 892	.3	Other than family held	97	1.8	
Pastureland and rangeland other than cropland and	farms --	9 640	.7	acres --	799 619	.2	
woodland pastured	acres --	34 857 649	.1	More than 10 stockholders	18	—	
Land in house lots, ponds, roads, wasteland, etc.	farms --	7 589	.8	10 or less stockholders	79	2.2	
	acres --	779 089	.4	Other—cooperative, estate or trust, institutional, etc.	121	2.5	
Irrigated land	farms --	5 951	.8	acres --	1 636 665	.2	
	acres --	1 872 674	.4	<b>Hired Farm Labor</b>			
Harvested cropland irrigated	farms --	5 533	.4	Hired workers by days worked:			
	acres --	1 458 435	.4	150 days or more	farms --	3 744	1.8
Pasture and other land irrigated	farms --	2 203	1.0	workers --	8 191	1.2	
	acres --	414 239	.6	Less than 150 days	farms --	5 663	1.8
Land under federal acreage reduction programs:				workers --	16 818	2.0	
Diverted under annual commodity programs	farms --	4 297	.6	<b>INJURIES AND DEATHS</b>			
	acres --	218 111	.3	Farm-related injuries:			
Conservation Reserve or Wetlands Reserve	farms --	3 099	.7	Operator and family members	farms --	258	1.3
Programs	acres --	1 725 901	.6	number --	290	1.4	
<b>VALUE OF LAND AND BUILDINGS<sup>1</sup></b>							
Estimated market value of land and buildings	farms --	15 054	.9	Hired workers	farms --	303	.5
\$1,000		11 657 784	1.4	number --	425	.3	
Average per farm	dollars --	774 398	1.6	<b>Farm-related deaths:</b>			
Average per acre	dollars --	216	1.5	Operator and family members	farms --	6	—
<b>VALUE OF MACHINERY AND EQUIPMENT<sup>1</sup></b>							
Estimated market value of all machinery and	farms --	15 054	.9	number --	(D)	(D)	
equipment	\$1,000 --	1 388 098	.9	Hired workers	farms --	3	—
Average per farm	dollars --	92 208	1.3	number --	3	—	
<b>AGRICULTURAL CHEMICALS<sup>1</sup></b>							
Commercial fertilizer	farms --	9 164	1.4	<b>FARMS BY SIZE</b>			
acres on which used --	5 311 452	1.3	1 to 9 acres	farms --	373	1.9	
<b>TENURE OF OPERATOR</b>							
All operators	farms --	14 853	.8	10 to 49 acres	farms --	343	2.2
	acres --	53 644 226	.2	50 to 69 acres	farms --	157	2.9
Full owners	farms --	5 101	1.1	70 to 99 acres	farms --	226	2.6
	acres --	11 434 584	.4	100 to 139 acres	farms --	281	2.3
Part owners	farms --	7 627	.6	140 to 179 acres	farms --	369	2.2
	acres --	36 839 107	.2	180 to 219 acres	farms --	296	2.3
Tenants	farms --	2 125	1.4	220 to 259 acres	farms --	213	2.5
	acres --	5 370 535	.5	260 to 499 acres	farms --	1 257	1.5
<b>OWNED AND RENTED LAND</b>							
Land owned	farms --	12 815	.8	500 to 999 acres	farms --	1 896	1.5
	acres --	36 395 876	.2	1,000 to 1,999 acres	farms --	2 601	1.4
Owned land in farms	farms --	12 728	.8	2,000 acres or more	farms --	6 841	.2
	acres --	33 601 821	.2	<b>FARMS BY STANDARD INDUSTRIAL CLASSIFICATION</b>			
Land rented or leased from others	farms --	9 816	.7	Cash grains (011)	farms --	5 108	.9
	acres --	20 411 160	.3	Field crops, except cash grains (013)	farms --	899	1.3
Rented or leased land in farms	landlords --	23 003	.6	Vegetables and melons (016)	farms --	9	11.3
	farms --	9 752	.7	Fruits and tree nuts (017)	farms --	18	7.1
	acres --	20 042 405	.3	Horticultural specialties (018)	farms --	98	2.8
Land rented or leased to others	farms --	1 701	1.0	General farms, primarily crop (019)	farms --	306	1.5
	acres --	3 162 810	.4	Livestock, except dairy, poultry, and animal specialties (021)	farms --	7 994	.8
<b>OPERATOR CHARACTERISTICS</b>							
Operators by place of residence:				Cash grains (021)	farms --	174	1.3
On farm operated		11 302	.8	Dairy farms (024)	farms --	10	7.5
Not on farm operated		2 469	1.4	Poultry and eggs (025)	farms --	186	2.4
Not reported		1 082	.8	Animal specialties (027)	farms --	51	2.7
Operators by principal occupation:				General farms, primarily livestock and animal specialties (029)	farms --		
Farming		12 701	.7	<b>LIVESTOCK</b>			
Other		2 152	1.5	Cattle and calves inventory	farms --	10 347	.8
Operators by days worked off farm:				Beef cows	farms --	2 574 763	.3
Any		4 920	1.2	Milk cows	farms --	9 573	.8
200 days or more		1 935	1.5	Cattle and calves sold	farms --	1 466 435	.3
Operators by sex:				Beef cows	farms --	816	.9
Male		14 010	.8	Milk cows	farms --	21 935	.4
Female		843	1.4	Hogs and pigs inventory	farms --	10 483	.8
Average age of operator	years --	52.4	1.2	Hogs and pigs sold	farms --	1 649 635	.2

See footnotes at end of table.

**Table D. Reliability Estimates of State Totals for Farms With Sales of \$10,000 or More: 1992—Con.**

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Relative standard error of estimate (percent)	Item	Total	Relative standard error of estimate (percent)
<b>POULTRY</b>			<b>CROPS HARVESTED—Con.</b>		
Chickens 3 months old or older inventory	farms -- number --	550 621 443	Barley for grain	farms -- acres -- bushels --	5 594 1 154 426 46 983 491
Hens and pullets of laying age	farms -- number --	544 020	Oats for grain	farms -- acres -- bushels --	1 448 79 632 4 357 167
Broilers and other meat-type chickens sold	farms -- number --	29 46 536	Dry edible beans, excluding dry limas	farms -- acres -- cwt --	83 (D) (D)
			Irish potatoes	farms -- acres -- cwt --	116 9 146
			Sugar beets for sugar	farms -- acres -- tons --	2 779 578 469 56 916 1 273 082
<b>CROPS HARVESTED</b>			Hay—alfalfa, other tame, small grain, wild, grass silage, green chop, etc. (see text)	farms -- acres -- tons, dry --	8 813 1 868 545 3 507 029
Corn for grain or seed	farms -- acres -- bushels --	209 17 817 1 840 917	Alfalfa hay	farms -- acres -- tons, dry --	7 060 1 151 319 2 493 733
Corn for silage or green chop	farms -- acres -- tons, green --	474 42 011 757 902	Vegetables harvested for sale (see text)	farms -- acres --	53 483
Wheat for grain	farms -- acres -- bushels --	7 747 4 829 152 141 908 538	Land in orchards	farms -- acres --	40 556

<sup>1</sup>Data are based on a sample of farms.

<sup>2</sup>Farms with total production expenses equal to market value of agricultural products sold are included as farms with gains of less than \$1,000.

C-12 APPENDIX C

## 1992 CENSUS OF AGRICULTURE

TIPS [UPF] BATCH\_938 [ACEN\_J\_MCGRANE] ACEN 7/21/94 12:47 PM MACHINE: EPCV20 DATA:VOL1\_TIPS\_APX\_81.TIPS;1 \* 7/19/94 07:23:00 TAPE: NOreel FRAME: 6 TSF:TIPS92-07234987.DAT;1 7/19/94 07:23:58 UTF:TIPS93-07234987.DAT;1 7/19/94 07:23:58 META:VOL1\_TIPS96\_APX\_81.DAT;3 7/19/94 07:24:47

**Table E. Reliability Estimates of Percent Change in State Totals: 1987 to 1992**

[For meaning of abbreviations and symbols, see introductory text]

Item	All farms		Farms with sales of \$10,000 or more	
	Percent change from 1987 to 1992	Standard error of estimate	Percent change from 1987 to 1992	Standard error of estimate
Farms-----	-7.1	1.0	-6.4	.9
Land in farms -----	-.9	.3	-1.3	.3
Average size of farm -----	6.6	1.2	5.4	1.0
Estimated market value of land and buildings <sup>1</sup> :				
Average per farm -----	17.7	2.1	14.5	2.1
Average per acre -----	10.7	1.8	9.6	1.9
Estimated market value of all machinery and equipment <sup>1</sup> :				
Average per farm -----	9.4	1.9	8.2	1.8
Farms by size:				
1 to 9 acres -----	-37.7	1.3	-32.3	1.6
10 to 49 acres -----	2.1	2.0	4.6	2.9
50 to 179 acres -----	1.4	1.9	18.1	2.5
180 to 499 acres -----	-10.6	1.5	-7.2	1.7
500 to 999 acres -----	-7.9	1.6	-8.7	1.7
1,000 to 1,999 acres -----	-12.1	1.4	-15.8	1.3
2,000 acres or more -----	-1.8	.3	-2.9	.3
Total cropland -----	-7.7	.9	-7.5	.8
farms-----	-1.9	.5	-3.2	.5
acres-----	-11.2	.9	-9.7	.8
Harvested cropland -----	-10.2	.4	-9.8	.4
Irrigated land -----	-6.7	1.0	-5.6	.9
farms-----	-.9	.5	.6	.5
Market value of agricultural products sold -----	\$1,000 --	11.8	.4	.4
Average per farm -----	dollars --	20.4	1.4	1.2
Crops, including nursery and greenhouse crops -----	\$1,000 --	8.2	.5	.5
Livestock, poultry, and their products -----	\$1,000 --	14.3	.3	.3
Farms by value of sales:				
Less than \$2,500 -----	-5.7	1.2	(X)	(X)
\$2,500 to \$4,999 -----	-12.1	1.9	(X)	(X)
\$5,000 to \$9,999 -----	-10.2	1.8	(X)	(X)
\$10,000 to \$24,999 -----	-12.8	1.6	-12.8	1.6
\$25,000 to \$49,999 -----	-17.4	1.4	-17.4	1.4
\$50,000 to \$99,999 -----	-13.2	.9	-13.2	.9
\$100,000 to \$249,999 -----	7.9	(L)	7.9	(L)
\$250,000 to \$499,999 -----	41.8	—	41.8	—
\$500,000 or more -----	46.4	—	46.4	—
Total farm production expenses <sup>1</sup> -----	\$1,000--	8.6	1.1	1.1
Average per farm -----	dollars --	16.9	1.5	1.4
Net cash return from agricultural sales for the farm unit (see text) <sup>1</sup> -----	farms--	-7.1	1.0	1.0
\$1,000--		28.3	2.8	2.4
Average per farm -----	dollars --	38.1	3.3	2.9
Operators by principal occupation:				
Farming -----	-8.0	.9	-8.1	.8
Other -----	-4.9	1.6	5.0	1.9
Operators by days worked off farm:				
Any -----	-8.6	4.7	-5.6	4.9
200 days or more -----	-6.2	4.9	5.4	5.5
Livestock and poultry:				
Cattle and calves inventory -----	farms--	-7.1	.9	.8
number--	2.1	.3	.3	
Beef cows -----	farms--	-5.4	.9	.9
number--	7.6	.4	.4	
Milk cows -----	farms--	-37.0	.8	.7
number--	-16.6	.5	.5	
Cattle and calves sold -----	farms--	-7.4	.9	.8
number--	2.0	.3	.3	
Hogs and pigs inventory -----	farms--	-24.9	1.2	1.2
number--	11.1	.9	.8	
Hogs and pigs sold -----	farms--	-23.3	1.2	1.2
number--	10.9	.9	.9	
Sheep and lambs inventory -----	farms--	-4.5	1.3	1.1
number--	7.9	.7	.7	
Chickens 3 months old or older inventory -----	farms--	-45.9	.8	.7
number--	-35.1	.2	.2	
Broilers and other meat-type chickens sold -----	farms--	-53.0	2.3	2.4
number--	-43.9	4.1	4.4	
Selected crops harvested:				
Corn for silage or green chop -----	farms--	-23.7	.8	.8
acres--	-.9	.6	.6	
tons, green--	-4.0	.7	.7	
Wheat for grain -----	farms--	-19.1	.8	.7
acres--	3.9	.5	.5	
bushels--	-.6	.5	.4	
Barley for grain -----	farms--	-37.9	.5	.5
acres--	-38.5	.3	.3	
bushels--	-40.5	.3	.3	
Oats for grain -----	farms--	-32.2	.7	.7
acres--	-37.7	.5	.5	
bushels--	-29.4	.6	.6	
Sugar beets for sugar -----	farms--	11.0	1.6	1.6
acres--	17.7	.7	.7	
tons--	21.3	.7	.7	
Hay—alfalfa, other tame, small grain, wild, grass silage, green chop, etc. (see text) -----	farms--	-12.0	.8	.8
acres--	-7.1	.5	.4	
tons, dry--	-4.9	.5	.4	

<sup>1</sup>Data are based on a sample of farms.

## 1992 CENSUS OF AGRICULTURE

## APPENDIX C C-13

**Table F. Reliability Estimates for the State and County Totals: 1992**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Farms		Land in farms		Average size of farm		Average market value of land and buildings per farm <sup>1</sup>		Estimated market value of all machinery and equipment <sup>1</sup>	
	Total (number)	Relative standard error of estimate (percent)	Total (acres)	Relative standard error of estimate (percent)	Total (acres)	Relative standard error of estimate (percent)	Value (dollars)	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
<b>Montana</b>	<b>22 821</b>	.9	<b>59 642 536</b>	.2	<b>2 613</b>	.9	<b>594 881</b>	1.5	<b>1 516 085</b>	.9
Beaverhead	345	.5	1 342 484	.2	3 891	.6	1 180 153	1.6	26 875	2.1
Big Horn	485	1.8	3 002 378	.2	6 190	1.8	1 455 146	15.1	43 470	4.9
Blaine	514	1.3	2 338 866	.3	4 550	1.3	760 395	2.7	40 425	5.1
Broadwater	205	.9	449 970	.6	2 195	1.1	653 247	4.1	18 179	5.3
Carbon	599	1.2	598 694	.8	999	1.4	394 709	5.4	29 603	4.2
Carter	308	.4	1 619 482	.2	5 258	.5	460 675	4.4	17 613	4.2
Cascade	792	1.0	1 424 228	.4	1 798	1.1	483 438	5.8	44 980	6.2
Chouteau	737	.6	2 277 936	.3	3 091	.7	890 312	4.7	89 380	4.5
Custer	380	.9	2 085 181	.1	5 487	.9	763 967	14.4	23 689	4.9
Daniels	325	1.4	761 459	.7	2 343	1.6	412 595	4.0	30 400	8.0
Dawson	451	1.0	1 334 041	.5	2 958	1.1	413 179	4.9	34 427	4.1
Deer Lodge	70	1.1	135 126	1.0	1 930	1.5	665 617	3.8	4 047	3.4
Fallon	302	1.1	944 497	.5	3 127	1.2	386 125	6.4	18 734	7.6
Fergus	804	1.0	2 232 575	.4	2 777	1.0	526 258	3.3	54 351	3.2
Flathead	813	.9	277 050	.9	341	1.3	455 686	5.3	31 185	6.3
Gallatin	789	.8	699 409	.5	886	1.0	605 364	7.2	49 130	4.2
Garfield	263	.6	2 000 266	.1	7 606	.6	814 366	14.6	17 992	2.2
Glacier	376	2.2	1 730 537	.6	4 602	2.3	933 146	4.5	33 622	5.2
Golden Valley	121	.7	636 514	.3	5 260	.8	929 994	3.7	9 743	7.9
Granite	138	.9	349 938	.4	2 536	1.0	761 900	5.4	8 048	2.3
Hill	641	1.0	1 644 001	.5	2 565	1.1	606 785	3.1	64 186	3.7
Jefferson	236	.8	367 482	.4	1 557	.9	476 440	8.2	7 933	4.1
Judith Basin	328	1.3	868 064	.5	2 647	1.4	598 918	9.9	22 506	4.0
Lake	948	1.2	631 377	.7	666	1.4	398 444	3.8	39 258	6.4
Lewis and Clark	438	1.0	883 479	.3	2 017	1.1	517 659	4.7	20 901	9.6
Liberty	274	.5	951 780	.3	3 474	.6	776 556	3.4	38 672	3.3
Lincoln	219	1.0	50 220	1.8	229	2.1	341 849	5.5	5 409	9.0
McCone	415	.7	1 290 134	.4	3 109	.8	507 761	9.3	35 466	7.7
Madison	418	.8	1 271 160	.2	3 041	.8	946 600	2.1	26 547	3.2
Meagher	134	.7	912 154	.2	6 807	.8	1 236 373	1.7	11 843	1.7
Mineral	67	1.2	19 158	3.5	286	3.7	284 536	6.0	1 853	4.5
Missoula	450	1.1	248 215	.9	552	1.4	412 141	11.7	10 733	11.6
Musselshell	253	1.0	1 031 872	.4	4 079	1.1	637 857	13.2	10 238	2.5
Park	385	.7	777 803	.4	2 020	.8	712 708	9.1	19 185	8.3
Petroleum	105	.6	669 516	.2	6 376	.6	880 794	2.4	7 000	4.3
Phillips	479	1.0	1 968 857	.3	4 110	1.0	606 118	2.6	33 907	3.9
Pondera	463	.8	893 872	.5	1 931	.9	701 949	17.6	39 540	5.5
Powder River	295	.6	1 629 363	.2	5 523	.6	547 749	7.8	17 719	1.8
Powell	233	1.0	675 569	.4	2 899	1.1	855 471	4.4	14 767	7.2
Prairie	165	.9	683 088	.3	4 140	1.0	540 909	4.1	13 983	1.3
Ravalli	937	1.0	241 655	.9	258	1.4	345 873	4.6	22 352	6.4
Richland	563	1.1	1 197 028	.6	2 126	1.3	390 395	5.1	51 723	5.1
Roosevelt	525	1.4	1 414 415	.5	2 694	1.5	477 028	2.7	39 718	4.8
Rosebud	357	.8	2 585 834	.2	7 243	.8	779 321	5.1	21 666	3.7
Sanders	348	.9	381 104	.6	1 095	1.1	417 371	12.2	9 520	6.2
Sheridan	526	1.1	962 450	.8	1 830	1.3	452 764	4.2	39 744	6.3
Silver Bow	105	1.7	99 746	1.4	950	2.2	329 990	6.1	2 504	5.8
Stillwater	446	.9	889 294	.5	1 994	1.0	443 436	3.8	26 905	6.3
Sweet Grass	295	.8	837 904	.4	2 840	.8	807 694	6.4	17 634	7.4
Teton	556	.6	1 178 885	.4	2 120	.7	586 959	2.9	48 469	5.6
Toole	358	1.0	1 063 086	.4	2 970	1.0	723 775	2.5	36 565	4.7
Treasure	113	1.4	599 014	.3	5 301	1.4	645 676	6.6	13 830	1.7
Valley	624	1.4	1 688 070	.5	2 705	1.5	527 983	5.6	46 380	6.9
Wheatland	146	.9	850 599	.3	5 826	.9	1 106 275	2.4	12 484	3.1
Wibaux	165	1.0	490 988	.5	2 976	1.1	382 024	6.5	10 546	5.8
Yellowstone	994	.9	1 454 669	.3	1 463	.9	395 705	3.9	48 509	2.4
Geographic area	Average market value of all machinery and equipment per farm <sup>1</sup>		Market value of agricultural products sold		Average market value of agricultural products sold per farm		Farm production expenses <sup>1</sup>			
	Value (dollars)	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Value (dollars)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
<b>Montana</b>	<b>66 472</b>	<b>1.3</b>	<b>1 730 237</b>	<b>.3</b>	<b>75 818</b>	<b>.9</b>	<b>22 824</b>	<b>.9</b>	<b>1 399 200</b>	<b>.5</b>
Beaverhead	77 672	2.2	65 294	.1	189 258	.6	346	.7	52 178	1.2
Big Horn	89 815	5.3	92 416	.3	190 548	1.8	484	1.9	67 054	2.0
Blaine	78 495	5.4	42 539	.4	82 760	1.3	515	1.6	33 735	2.3
Broadwater	88 677	5.4	16 396	.6	79 982	1.1	205	1.3	14 105	3.4
Carbon	49 421	4.4	43 492	.6	72 608	1.3	599	1.3	33 901	1.8
Carter	57 186	4.2	23 264	.2	75 533	.5	308	.7	17 327	3.3
Cascade	56 792	6.4	52 976	.4	66 889	1.0	792	1.2	45 506	2.0
Chouteau	121 440	4.5	57 197	.3	77 608	.7	737	.7	58 091	2.5
Custer	62 340	5.0	43 842	.2	115 373	.9	380	1.0	35 909	1.2
Daniels	93 538	8.2	23 209	.8	71 413	1.6	325	1.4	17 606	4.4
Dawson	76 336	4.2	34 039	.5	75 475	1.1	451	1.1	24 915	2.8
Deer Lodge	57 813	4.9	4 682	.9	66 883	1.4	70	3.6	4 023	1.3
Fallon	62 032	7.7	18 793	.7	62 228	1.3	302	1.2	14 354	2.9
Fergus	67 601	3.5	59 560	.4	74 080	1.1	804	1.2	47 282	1.7

See footnotes at end of table.

## C-14 APPENDIX C

## 1992 CENSUS OF AGRICULTURE

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Average market value of all machinery and equipment per farm <sup>1</sup>		Market value of agricultural products sold		Average market value of agricultural products sold per farm		Farm production expenses <sup>1</sup>			
	Value (dollars)	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Value (dollars)	Relative standard error of estimate (percent)	Total farm production expenses			
							Farms		Value	
							Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
Flathead -----	38 405	6.4	26 502	.5	32 597	1.1	812	1.0	20 974	2.8
Gallatin -----	62 348	4.3	58 243	.4	73 819	.9	788	1.0	43 407	1.3
Garfield -----	68 409	2.4	24 987	.2	95 006	.6	263	1.0	19 863	3.0
Glacier -----	89 182	5.7	35 763	.7	95 116	2.3	377	2.3	29 671	2.4
Golden Valley -----	80 517	8.1	11 168	.4	92 300	.8	121	2.0	8 642	2.6
Granite -----	58 316	3.0	10 085	.5	73 081	1.0	138	1.8	7 768	3.4
Hill -----	99 978	3.8	41 416	.4	64 611	1.1	642	.9	39 209	2.9
Jefferson -----	33 612	4.2	10 202	.6	43 228	1.0	236	1.0	7 127	3.5
Judith Basin -----	68 617	4.2	31 746	.5	96 785	1.3	328	1.3	24 672	2.3
Lake -----	41 368	6.5	36 674	.7	38 686	1.4	949	1.1	29 991	2.1
Lewis and Clark -----	47 828	9.7	19 100	.6	43 607	1.2	437	1.2	16 138	4.6
Liberty -----	141 140	3.4	30 759	.3	112 258	.6	274	.8	26 579	3.1
Lincoln -----	24 811	9.1	2 253	2.5	10 287	2.7	218	1.7	2 931	15.5
McCone -----	85 461	7.7	30 667	.4	73 897	.9	415	.8	23 136	3.7
Madison -----	63 661	3.4	36 738	.3	87 890	.9	418	1.1	29 805	1.8
Meagher -----	88 384	2.2	18 386	.3	137 209	.8	134	1.3	14 943	1.1
Mineral -----	27 660	6.0	973	3.3	14 525	3.5	67	4.0	963	3.7
Missoula -----	23 852	11.6	7 743	1.5	17 208	1.9	450	1.4	6 984	7.4
Musselshell -----	40 467	2.8	14 111	.6	55 775	1.2	253	1.3	12 250	4.4
Park -----	49 830	8.3	19 695	.5	51 155	.8	385	.8	15 694	5.5
Petroleum -----	66 665	4.4	11 676	.2	111 196	.6	105	1.2	8 429	3.3
Phillips -----	70 787	4.0	44 875	.4	93 685	1.1	479	1.0	37 754	2.5
Pondera -----	85 399	5.6	33 259	.4	71 834	.9	463	1.2	31 113	2.9
Powder River -----	60 064	2.0	25 623	.3	86 857	.6	295	.8	19 406	1.7
Powell -----	63 105	7.3	18 154	.5	77 913	1.1	234	1.4	14 786	3.8
Prairie -----	86 316	2.3	18 951	.4	114 856	1.0	165	1.2	14 758	1.8
Ravalli -----	23 829	6.5	22 891	.7	24 431	1.2	938	1.1	19 986	2.4
Richland -----	91 871	5.2	55 039	.4	97 760	1.2	563	1.2	39 177	1.6
Roosevelt -----	75 653	5.0	36 959	.6	70 399	1.5	525	1.5	26 726	3.1
Rosebud -----	60 688	3.8	43 098	.2	120 723	.8	357	.9	30 562	1.7
Sanders -----	27 434	6.3	12 074	.7	34 695	1.1	347	1.2	8 871	2.7
Sheridan -----	75 558	6.4	31 012	.7	58 958	1.3	526	1.2	23 258	4.7
Silver Bow -----	23 623	6.3	2 476	1.1	23 585	2.0	106	2.5	1 885	3.7
Stillwater -----	60 326	6.4	31 121	.5	69 779	1.0	446	1.4	26 260	2.3
Sweet Grass -----	59 575	7.5	18 028	.5	61 111	.9	296	1.2	14 638	3.1
Teton -----	87 174	5.7	57 979	.3	104 278	.7	556	.8	51 004	2.0
Toole -----	102 136	4.9	30 851	.4	86 175	1.1	358	1.1	25 759	3.6
Treasure -----	122 392	3.1	18 835	.3	166 684	1.4	113	2.6	15 281	.9
Valley -----	74 447	7.0	40 624	.6	65 102	1.5	623	1.4	32 891	3.0
Wheatland -----	85 505	3.7	21 367	.3	146 352	.9	146	2.0	15 416	2.2
Wibaux -----	63 915	6.0	10 154	.7	61 540	1.2	165	1.8	8 067	2.8
Yellowstone -----	49 298	2.8	100 281	.2	100 886	.9	995	.9	86 443	.8
Farm production expenses <sup>1</sup> —Con.										
Geographic area	Livestock and poultry purchased			Feed for livestock and poultry			Seeds, bulbs, plants, and trees			
	Farms		Value		Farms		Value		Farms	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
	Montana -----	8 252	1.8	191 132	.8	13 555	1.3	142 789	.8	9 376
Beaverhead -----	186	6.1	10 382	2.2	248	4.6	5 816	2.1	81	8.6
Big Horn -----	209	11.6	12 083	1.5	317	7.2	7 229	2.4	195	10.9
Blaine -----	183	12.5	2 211	7.2	324	7.7	3 530	8.3	279	8.8
Broadwater -----	72	16.6	754	5.3	105	10.7	1 259	3.3	106	8.2
Carbon -----	262	7.7	10 224	2.2	371	7.1	3 604	3.2	218	9.1
Carter -----	140	9.5	2 016	.4	235	7.2	2 108	4.5	101	13.1
Cascade -----	260	10.7	5 272	7.5	458	6.8	6 462	4.1	257	9.6
Chouteau -----	130	9.7	1 258	4.6	281	7.9	2 966	12.1	432	4.8
Custer -----	177	10.4	12 011	1.3	274	7.6	3 664	1.2	141	11.3
Daniels -----	75	14.6	780	12.9	107	10.8	1 123	10.4	204	8.1
Dawson -----	151	12.5	1 925	5.1	227	8.0	1 402	6.0	261	7.8
Deer Lodge -----	30	5.0	719	1.7	49	4.1	326	3.9	12	6.2
Fallon -----	135	12.4	2 169	15.0	221	6.1	1 816	6.9	78	17.1
Fergus -----	385	6.8	5 148	7.0	542	4.9	4 372	5.5	385	5.9
Flathead -----	225	11.7	1 958	10.0	399	8.0	2 020	4.7	221	10.7
Gallatin -----	255	9.6	2 093	4.2	539	4.5	5 934	2.8	333	6.5
Garfield -----	133	12.3	1 700	4.1	196	6.6	2 471	3.8	97	14.1
Glacier -----	133	12.9	1 654	14.3	228	7.6	2 777	8.4	151	3.9
Golden Valley -----	65	9.6	1 879	2.3	91	6.3	1 142	6.5	46	11.6
Granite -----	72	6.4	1 202	9.2	97	4.5	928	3.5	34	8.0
Hill -----	133	15.7	1 231	4.7	232	11.4	2 784	13.3	409	5.9
Jefferson -----	103	15.5	755	5.7	166	8.9	1 103	9.2	65	18.4
Judith Basin -----	151	13.3	3 386	4.3	234	7.6	2 860	5.0	127	13.0
Lake -----	251	11.6	2 630	10.2	511	6.1	3 445	6.4	277	10.5

See footnotes at end of table.

## 1992 CENSUS OF AGRICULTURE

## APPENDIX C C-15

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Farm production expenses <sup>1</sup> —Con.											
	Livestock and poultry purchased				Feed for livestock and poultry				Seeds, bulbs, plants, and trees			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
Lewis and Clark -----	156	13.7	1 664	17.7	281	7.9	1 600	7.3	121	15.7	216	7.6
Liberty -----	48	23.1	802	29.7	99	10.4	2 182	4.8	151	9.9	666	6.3
Lincoln -----	74	24.9	206	36.0	130	14.2	418	27.4	64	28.5	49	65.9
McCone -----	116	15.1	1 349	3.8	209	10.4	1 498	8.1	240	8.8	573	8.5
Madison -----	169	10.6	4 186	4.0	296	5.8	2 251	4.4	136	10.6	467	15.5
Meagher -----	75	5.8	1 348	3.1	96	4.7	1 308	2.3	42	3.6	168	.4
Mineral -----	18	7.0	78	11.3	39	4.8	143	3.4	22	6.1	19	11.0
Missoula -----	152	13.7	545	17.8	283	8.2	645	16.3	95	17.2	182	8.5
Musselshell -----	101	13.5	1 524	27.1	196	6.5	1 325	6.2	72	18.1	206	9.1
Park -----	172	12.8	2 431	18.0	303	5.6	1 536	7.6	107	16.2	163	15.4
Petroleum -----	49	9.7	934	1.8	84	6.0	1 243	9.6	34	9.4	142	1.4
Phillips -----	192	9.8	6 255	4.3	317	6.4	4 622	5.8	215	9.2	447	3.6
Pondera -----	137	10.7	1 326	9.3	199	9.9	2 400	5.8	330	6.2	1 103	7.6
Powder River -----	171	7.8	3 136	2.7	245	5.3	2 407	2.8	96	7.2	102	7.9
Powell -----	104	15.6	1 142	11.1	190	7.7	1 878	3.2	43	29.6	130	25.5
Prairie -----	96	7.6	3 406	1.3	113	4.5	1 555	2.2	89	6.5	244	2.5
Ravalli -----	348	9.4	2 334	14.2	602	5.0	3 601	5.1	175	15.1	262	14.2
Richland -----	239	9.5	5 923	4.3	308	7.4	2 841	4.5	346	7.0	1 241	3.7
Roosevelt -----	107	17.2	965	7.9	218	10.6	1 052	10.8	283	9.0	892	7.2
Rosebud -----	145	10.5	5 294	.8	263	6.9	3 520	2.0	137	11.5	361	8.6
Sanders -----	163	12.7	837	15.1	228	10.1	874	6.8	113	16.6	265	8.4
Sheridan -----	107	19.7	810	22.1	204	12.0	986	11.4	277	8.6	807	10.0
Silver Bow -----	30	11.9	235	20.7	76	6.1	308	5.0	10	2.6	10	.8
Stillwater -----	190	11.4	4 648	4.8	314	7.3	2 827	6.6	153	13.7	337	12.8
Sweet Grass -----	139	11.9	1 483	4.4	224	5.4	2 113	3.8	81	15.9	98	7.0
Teton -----	162	10.9	10 154	2.4	276	8.1	5 289	2.5	370	4.6	1 707	4.9
Toole -----	89	19.4	1 199	5.6	133	13.9	1 556	5.5	211	7.4	989	7.0
Treasure -----	61	8.3	3 231	.8	75	6.3	916	3.0	65	6.6	335	2.0
Valley -----	201	11.4	2 224	11.5	305	8.6	2 355	6.6	273	9.4	657	7.7
Wheatland -----	63	9.0	2 407	4.1	107	5.7	2 349	3.8	62	8.8	122	5.7
Wibaux -----	78	7.1	1 357	5.5	117	5.1	845	5.1	73	8.1	113	7.6
Yellowstone -----	384	7.9	32 258	1.5	573	6.1	13 203	1.4	380	5.4	1 526	3.4
Geographic area	Farm production expenses <sup>1</sup> —Con.											
	Commercial fertilizer				Agricultural chemicals				Petroleum products			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
<b>Montana-----</b>	<b>11 374</b>	<b>1.4</b>	<b>85 281</b>	<b>1.2</b>	<b>11 796</b>	<b>1.4</b>	<b>57 078</b>	<b>1.5</b>	<b>21 591</b>	<b>.9</b>	<b>108 667</b>	<b>.7</b>
Beaverhead -----	180	6.6	1 925	2.4	129	9.8	439	3.4	325	2.2	2 546	2.2
Big Horn -----	241	9.2	3 630	6.1	222	10.5	1 863	10.8	478	1.9	3 598	3.7
Blaine -----	227	10.8	1 472	4.8	209	10.7	1 397	2.8	498	2.3	3 143	3.8
Broadwater -----	126	4.1	1 336	4.9	113	7.4	517	8.9	191	1.2	986	4.0
Carbon -----	321	7.1	1 629	6.7	267	7.8	697	9.1	570	2.5	2 170	3.6
Carter -----	47	15.3	251	.7	121	10.9	359	10.0	304	.7	1 474	3.8
Cascade -----	391	6.9	3 656	4.9	432	6.5	2 102	11.0	732	2.7	3 043	2.9
Chouteau -----	558	4.0	8 460	6.3	527	4.4	4 156	7.9	694	2.2	5 485	3.2
Custer -----	169	11.3	768	6.1	110	10.5	457	8.2	376	1.0	1 943	2.6
Daniels -----	120	14.3	595	9.1	246	6.4	1 331	5.2	323	1.5	2 032	3.9
Dawson -----	316	5.6	1 899	4.6	286	5.5	1 469	9.0	424	3.0	2 435	5.2
Deer Lodge -----	29	4.8	141	2.2	19	6.6	36	2.7	66	3.6	233	2.0
Fallon -----	115	12.3	492	6.7	124	11.4	505	18.5	290	3.0	1 426	4.5
Fergus -----	462	5.2	3 845	6.6	517	4.8	2 033	4.6	786	1.6	4 419	2.7
Flathead -----	434	6.9	1 779	5.9	309	8.0	740	6.6	714	3.2	1 166	4.1
Gallatin -----	465	4.9	3 362	3.5	400	5.9	1 198	4.4	748	1.8	2 844	3.0
Garfield -----	89	15.0	456	2.7	120	7.1	690	9.9	255	1.0	1 825	4.7
Glacier -----	186	6.2	2 699	5.1	181	11.9	1 990	1.6	365	3.7	2 597	3.6
Golden Valley -----	61	9.1	325	7.8	47	10.4	181	4.6	120	2.0	570	3.7
Granite -----	56	7.4	245	5.5	60	8.5	85	10.6	133	2.3	602	3.1
Hill -----	368	7.2	3 544	5.1	465	4.3	2 998	5.6	628	1.1	4 059	3.6
Jefferson -----	45	20.5	160	7.8	94	13.1	133	9.9	227	2.6	603	4.0
Judith Basin -----	151	7.8	1 555	6.0	237	8.8	1 689	12.5	328	1.3	1 682	4.2
Lake -----	474	7.8	1 423	7.2	498	6.9	863	6.2	866	2.4	2 054	3.6
Lewis and Clark -----	218	10.4	679	7.7	155	12.6	311	6.9	380	4.5	1 327	5.9
Liberty -----	176	6.6	2 420	8.6	177	7.3	2 072	10.7	264	2.4	2 537	3.7
Lincoln -----	120	12.3	75	37.5	54	34.0	26	69.1	198	3.5	315	13.0
McCone -----	231	8.5	1 546	8.2	303	4.0	1 756	10.0	396	2.1	2 361	5.8
Madison -----	176	8.6	1 369	6.6	182	10.4	334	6.3	404	2.0	1 892	3.5
Meagher -----	57	3.5	515	2.3	71	5.1	222	.5	123	1.4	944	1.2
Mineral -----	29	5.6	51	10.8	38	5.1	25	12.7	61	4.1	68	3.8
Missoula -----	167	13.6	245	26.5	167	13.6	118	29.5	384	4.6	500	9.1
Musselshell -----	67	15.2	407	4.2	114	12.8	334	3.6	240	3.2	982	4.6
Park -----	141	12.5	483	8.9	219	7.5	326	19.9	369	2.2	1 340	7.6

See footnotes at end of table.

## C-16 APPENDIX C

## 1992 CENSUS OF AGRICULTURE

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Farm production expenses <sup>1</sup> —Con.											
	Commercial fertilizer				Agricultural chemicals				Petroleum products			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
Petroleum -----	16	20.1	117	8.0	55	9.5	176	9.6	100	3.3	627	3.5
Phillips -----	212	8.1	1 447	6.8	224	9.6	1 334	10.3	461	2.6	3 210	2.2
Pondera -----	367	5.3	4 111	4.4	324	6.1	1 932	7.0	461	1.2	2 744	3.4
Powder River -----	70	13.8	234	1.0	97	12.8	332	3.8	292	.8	1 799	4.6
Powell -----	103	12.9	948	8.6	110	14.7	278	19.5	232	1.4	964	5.7
Prairie -----	111	6.3	648	3.9	104	6.7	455	7.7	150	4.3	1 042	2.1
Ravalli -----	508	7.1	828	6.1	239	12.8	136	10.5	851	2.6	1 215	8.3
Richland -----	326	6.3	3 071	6.2	337	5.8	2 310	10.1	532	2.6	3 545	2.5
Roosevelt -----	246	8.4	1 495	5.0	363	6.1	2 525	7.4	508	2.6	3 063	4.3
Rosebud -----	137	14.7	1 044	5.3	193	7.6	731	4.9	355	.9	2 220	3.2
Sanders -----	128	15.9	321	9.4	90	19.8	103	22.7	306	5.5	693	10.6
Sheridan -----	195	11.9	1 481	21.5	323	5.6	1 795	10.0	495	2.7	3 059	5.6
Silver Bow -----	12	2.2	30	.1	48	10.6	35	17.9	94	4.9	163	5.5
Stillwater -----	214	10.8	1 444	5.8	250	9.3	946	12.5	411	2.8	1 924	4.7
Sweet Grass -----	114	13.9	387	10.8	167	7.7	252	21.0	290	2.2	1 239	7.9
Teton -----	454	4.0	5 378	3.1	422	4.4	2 813	4.5	554	.8	3 145	2.6
Toole -----	130	13.2	1 001	8.7	228	7.7	2 151	7.3	326	2.4	2 271	4.8
Treasure -----	58	8.0	1 210	.9	60	8.1	669	.3	111	2.6	1 122	2.4
Valley -----	232	10.4	1 407	9.8	303	7.7	1 988	6.4	557	3.2	3 428	4.2
Wheatland -----	75	7.3	991	7.8	94	6.4	474	2.8	141	2.7	1 083	2.6
Wibaux -----	71	6.6	438	7.5	80	7.4	319	8.0	156	2.7	747	4.0
Yellowstone -----	582	5.6	3 812	2.7	472	6.1	1 875	2.4	948	1.9	4 166	3.1
Geographic area	Farm production expenses <sup>1</sup> —Con.											
	Electricity				Hired farm labor				Contract labor			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
<b>Montana</b> -----	<b>17 808</b>	<b>1.1</b>	<b>29 742</b>	<b>1.0</b>	<b>8 191</b>	<b>1.6</b>	<b>107 632</b>	<b>.8</b>	<b>4 130</b>	<b>2.6</b>	<b>15 244</b>	<b>3.1</b>
Beaverhead -----	270	4.5	1 737	4.0	179	5.9	7 266	1.9	102	11.0	790	9.4
Big Horn -----	349	6.9	1 126	3.4	293	8.5	6 240	2.8	110	16.2	1 079	30.3
Blaine -----	406	5.7	682	5.4	211	10.6	2 144	5.5	118	15.8	640	8.8
Broadwater -----	182	5.3	861	5.7	95	8.7	1 524	3.9	48	21.6	197	14.1
Carbon -----	517	3.4	642	10.0	200	10.4	1 924	4.8	138	12.9	374	7.2
Carter -----	232	7.3	272	2.8	119	8.5	1 014	6.2	97	16.3	292	13.6
Cascade -----	575	5.0	866	5.5	262	9.2	3 382	2.6	120	15.5	377	8.9
Chouteau -----	600	3.9	895	3.8	314	6.6	4 106	5.8	136	11.0	609	10.5
Custer -----	309	5.7	461	4.7	94	9.7	2 258	(L)	89	19.8	510	9.6
Daniels -----	294	3.3	305	7.0	117	12.1	1 255	14.0	40	24.5	107	16.2
Dawson -----	367	5.2	438	6.1	161	11.1	1 748	8.7	88	17.9	396	17.8
Deer Lodge -----	47	4.0	194	1.9	27	4.3	364	.6	10	7.4	51	4.1
Fallon -----	261	4.5	311	4.2	66	13.0	639	6.2	49	25.8	125	25.6
Fergus -----	628	4.0	782	3.3	265	9.1	2 249	4.1	139	13.0	576	6.7
Flathead -----	526	6.0	678	4.9	199	11.2	2 240	4.5	128	17.4	211	15.0
Galatin -----	609	3.6	1 889	4.1	341	6.6	5 143	.9	162	12.5	529	11.2
Garfield -----	218	5.9	383	5.8	84	8.0	1 211	5.3	76	11.2	310	7.3
Glacier -----	269	8.8	536	4.7	134	11.3	1 898	8.9	40	16.2	119	2.3
Golden Valley -----	100	5.7	148	6.7	38	8.6	822	2.9	31	15.4	60	5.1
Granite -----	116	3.2	202	3.7	59	7.0	734	3.1	39	8.9	70	7.3
Hill -----	541	2.7	734	5.3	173	9.4	1 624	11.0	71	16.5	229	11.9
Jefferson -----	164	7.9	288	5.6	78	16.8	650	4.0	35	33.4	58	30.1
Judith Basin -----	247	7.6	398	4.7	140	14.0	1 512	5.8	51	—	277	—
Lake -----	661	5.1	933	4.7	407	8.2	2 742	4.0	150	15.6	558	21.4
Lewis and Clark -----	369	4.5	600	6.6	94	16.8	1 630	9.6	71	21.3	147	13.1
Liberty -----	232	5.1	524	3.3	124	10.2	2 247	8.2	50	10.1	274	21.2
Lincoln -----	156	5.4	127	9.8	75	18.7	217	50.8	33	35.8	33	64.3
McCone -----	298	6.9	365	6.0	124	12.8	1 088	2.9	86	15.1	265	7.4
Madison -----	343	4.5	1 120	11.0	167	7.3	3 736	3.0	106	15.8	238	14.6
Meagher -----	101	3.7	285	1.9	72	4.4	2 182	2.3	35	9.1	217	1.0
Mineral -----	40	4.6	31	3.5	22	5.9	85	5.4	14	6.8	12	4.5
Missoula -----	351	5.5	294	10.0	138	14.5	767	9.5	53	27.4	84	31.9
Musselshell -----	216	5.7	241	9.0	91	10.0	929	3.9	37	24.3	92	8.8
Park -----	292	6.2	440	7.3	108	16.5	1 553	16.8	41	18.5	111	5.2
Petroleum -----	92	4.4	172	6.5	34	11.9	395	2.7	38	13.6	130	1.9
Phillips -----	370	4.6	578	4.1	186	7.7	2 485	4.6	63	19.2	290	11.2
Pondera -----	319	7.2	746	7.5	187	8.1	1 785	4.4	92	15.1	304	27.4
Powder River -----	228	6.2	318	5.2	138	8.5	1 581	2.2	43	12.6	113	24.4
Powell -----	203	6.2	513	15.4	95	13.2	2 377	4.2	67	20.0	100	10.8
Prairie -----	131	5.4	231	2.2	68	5.9	813	2.1	27	18.6	66	4.5
Ravalli -----	675	5.0	592	7.0	304	10.6	2 315	8.3	118	17.0	225	10.8
Richland -----	457	4.6	584	3.6	197	9.2	2 017	3.5	132	12.1	515	2.2
Roosevelt -----	386	5.7	392	6.6	133	9.9	1 400	9.3	101	20.7	312	10.6
Rosebud -----	301	5.3	489	4.6	126	9.2	3 381	.7	36	17.6	154	4.1

See footnotes at end of table.

## 1992 CENSUS OF AGRICULTURE

## APPENDIX C C-17

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Farm production expenses <sup>1</sup> —Con.											
	Electricity				Hired farm labor				Contract labor			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
Sanders -----	236	10.0	275	9.1	141	16.2	1 692	2.6	60	27.3	66	14.0
Sheridan -----	430	4.6	634	17.1	176	13.4	1 030	16.6	83	22.9	318	39.1
Silver Bow -----	66	6.9	83	3.5	29	6.9	193	1.6	10	16.2	13	25.8
Stillwater -----	400	4.0	400	4.9	150	13.4	1 965	4.3	80	19.2	341	22.1
Sweet Grass -----	236	5.0	355	12.2	137	12.4	1 332	5.1	49	25.6	139	33.7
Teton -----	428	4.7	987	5.3	220	7.8	2 584	8.4	140	12.9	408	9.1
Toole -----	282	5.9	348	7.0	171	9.7	1 768	4.4	42	16.9	161	18.8
Treasure -----	82	4.7	257	2.5	51	6.3	1 649	.8	21	2.3	184	.4
Valley -----	523	3.1	660	4.3	162	11.6	1 535	6.8	111	19.6	548	29.4
Wheatland -----	120	4.9	213	3.4	59	9.2	1 414	1.9	44	11.6	148	4.6
Wibaux -----	128	4.1	156	5.3	44	7.9	373	5.8	20	16.1	95	19.9
Yellowstone -----	829	3.5	969	3.8	312	8.2	4 425	2.0	160	11.1	597	5.1
Farm production expenses <sup>1</sup> —Con.												
Geographic area	Repair and maintenance				Customwork, machine hire, and rental of machinery and equipment				Interest expense			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
	Montana -----	19 724	1.0	113 906	.9	7 393	1.9	32 543	2.2	13 200	1.3	146 474
Beaverhead -----	299	3.8	2 955	1.9	118	9.3	760	9.0	215	5.2	5 829	2.1
Big Horn -----	420	4.2	4 469	4.5	179	11.7	1 585	9.3	347	6.8	5 249	3.9
Blaine -----	482	3.3	3 429	5.2	243	10.5	1 075	5.4	335	7.3	4 470	6.0
Broadwater -----	196	3.2	960	5.3	47	18.3	200	2.7	129	8.1	2 208	8.7
Carbon -----	536	3.5	2 541	5.2	207	10.8	462	10.9	349	6.5	2 968	5.6
Carter -----	270	5.0	1 515	9.7	95	9.8	474	6.0	246	4.6	2 414	5.3
Cascade -----	653	4.1	3 547	3.4	210	11.6	993	10.4	421	8.1	4 228	4.8
Chouteau -----	627	3.5	5 280	3.8	331	7.0	2 093	11.0	471	4.9	5 672	4.7
Custer -----	304	6.4	2 167	3.6	104	10.1	482	7.7	174	7.3	3 618	3.2
Daniels -----	300	3.9	2 091	8.3	159	9.6	584	8.2	203	8.4	2 588	9.0
Dawson -----	419	3.0	2 372	4.9	204	9.5	898	8.8	264	7.8	3 072	7.2
Deer Lodge -----	51	4.1	247	2.3	18	5.0	51	5.6	36	4.2	781	1.0
Fallon -----	289	2.6	1 329	4.8	89	18.1	257	10.4	172	11.5	1 682	12.1
Fergus -----	735	2.5	4 149	3.9	271	9.2	993	7.6	536	4.9	5 360	5.5
Flathead -----	650	4.2	2 009	7.1	183	13.4	443	12.2	243	11.4	2 282	8.9
Galatin -----	675	2.6	3 478	2.7	295	8.0	885	6.0	424	6.4	3 825	7.9
Garfield -----	237	4.4	1 514	5.3	95	14.0	1 267	6.1	166	8.1	2 605	7.2
Glacier -----	338	5.6	2 185	2.9	129	11.0	1 561	4.2	190	11.4	2 053	5.7
Golden Valley -----	112	4.1	543	4.2	39	8.1	170	8.9	83	5.6	758	8.0
Granite -----	121	3.4	548	3.4	26	7.7	39	5.5	95	4.8	1 196	11.6
Hill -----	577	2.9	4 483	5.3	241	9.6	1 413	16.7	496	3.9	4 916	5.8
Jefferson -----	192	4.7	559	8.7	34	28.1	41	3.5	120	14.3	901	5.8
Judith Basin -----	288	5.9	1 693	8.7	99	15.3	281	5.1	235	7.5	2 642	7.3
Lake -----	827	3.1	2 604	5.8	255	12.0	443	16.5	553	5.5	3 636	7.0
Lewis and Clark -----	392	3.7	1 235	5.0	137	15.5	259	10.6	252	8.4	2 176	10.0
Liberty -----	248	3.6	2 508	8.5	97	10.9	813	11.6	166	8.5	2 410	10.1
Lincoln -----	191	7.4	291	8.4	37	33.6	25	20.2	87	24.8	503	40.2
McCone -----	376	3.0	2 328	7.3	154	13.6	674	6.7	250	8.3	2 656	6.2
Madison -----	356	4.7	2 103	3.9	123	13.1	430	5.9	268	6.7	3 805	5.3
Meagher -----	111	3.1	1 306	1.2	51	8.6	456	4.7	67	4.3	2 121	1.3
Mineral -----	51	4.3	107	5.4	15	7.0	36	12.8	26	5.0	76	6.5
Missoula -----	353	5.8	973	21.9	79	24.2	85	47.7	149	15.1	432	14.5
Musselshell -----	221	5.6	882	7.2	50	23.3	452	3.2	145	11.0	1 272	4.7
Park -----	320	4.6	1 354	8.5	68	18.0	174	13.9	179	10.2	1 883	8.0
Petroleum -----	90	5.1	672	11.0	35	16.1	266	7.5	80	5.7	946	6.0
Phillips -----	437	3.3	2 956	6.1	191	9.0	909	6.0	320	5.7	4 316	5.7
Pondera -----	376	5.7	2 875	5.0	198	9.3	762	9.3	311	6.6	2 726	7.3
Powder River -----	277	2.5	1 538	2.8	87	14.3	254	2.5	212	6.3	2 249	1.6
Powell -----	173	8.6	1 204	8.0	38	30.6	56	23.9	122	15.4	1 003	5.6
Prairie -----	135	5.1	1 106	2.8	86	8.1	316	8.2	123	5.5	1 529	4.2
Ravalli -----	717	4.6	1 504	5.6	278	11.6	330	10.9	372	8.7	1 883	7.5
Richland -----	473	4.1	3 609	3.9	199	9.2	730	5.0	329	7.2	4 015	3.8
Roosevelt -----	467	3.9	3 141	6.1	183	11.6	738	10.3	319	7.3	2 543	8.2
Rosebud -----	338	2.4	2 308	5.4	114	16.4	787	6.0	197	10.9	3 262	6.1
Sanders -----	271	7.9	678	5.5	81	24.2	86	29.2	129	14.4	814	9.7
Sheridan -----	448	3.9	2 814	8.3	169	14.4	470	17.9	298	8.7	3 208	11.9
Silver Bow -----	81	6.4	139	4.4	30	14.7	40	6.2	32	13.2	183	9.3
Stillwater -----	394	4.3	2 058	4.1	194	12.7	863	11.0	244	8.7	2 884	7.2
Sweet Grass -----	272	3.8	1 324	9.4	80	16.7	179	7.4	183	8.6	1 852	8.9
Teton -----	480	3.8	3 243	5.6	181	10.8	769	4.5	401	5.1	4 143	7.2
Toole -----	306	4.2	2 394	8.8	139	11.9	1 554	33.6	261	6.9	2 853	7.9
Treasure -----	95	5.4	1 000	2.8	33	7.6	204	2.8	88	4.7	1 400	4.4
Valley -----	535	3.8	3 017	5.2	186	10.4	685	10.3	336	7.2	4 422	6.2
Wheatland -----	125	4.1	1 376	2.7	54	10.1	254	11.8	76	7.4	1 183	6.0
Wibaux -----	135	4.3	725	4.3	64	9.4	192	14.6	98	6.3	915	5.9
Yellowstone -----	882	2.8	4 468	3.3	291	9.3	1 242	2.4	577	5.4	5 859	3.0

See footnotes at end of table.

## C-18 APPENDIX C

## 1992 CENSUS OF AGRICULTURE

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Farm production expenses <sup>1</sup> —Con.											
	Cash rent				Property taxes paid				All other farm production expenses			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
<b>Montana</b>	<b>6 914</b>	<b>1.9</b>	<b>73 717</b>	<b>1.7</b>	<b>21 382</b>	<b>.9</b>	<b>74 177</b>	<b>.9</b>	<b>21 593</b>	<b>1.0</b>	<b>192 194</b>	<b>.7</b>
Beaverhead	69	14.3	879	1.9	314	3.6	2 108	1.6	334	2.1	8 247	2.7
Big Horn	190	10.3	5 071	7.1	449	3.0	2 350	3.0	475	2.5	10 414	1.5
Blaine	112	10.8	2 051	9.0	475	3.6	1 976	4.5	479	3.1	4 684	4.7
Broadwater	41	21.8	311	8.7	197	2.8	647	5.2	199	2.7	1 965	2.6
Carbon	124	12.5	960	9.7	578	1.9	1 524	11.2	591	1.5	3 555	5.0
Carter	80	9.0	847	4.6	306	.7	1 054	4.5	305	.7	3 029	8.0
Cascade	227	10.4	2 507	4.1	745	2.2	2 505	3.5	741	2.4	5 842	3.4
Chouteau	231	8.4	3 149	5.4	689	2.2	4 671	4.3	722	1.7	7 666	3.7
Custer	132	9.8	1 569	5.0	347	3.0	1 517	5.2	359	3.8	4 113	1.8
Daniels	104	14.1	744	12.9	315	2.6	1 278	5.2	309	3.6	2 328	9.1
Dawson	140	10.6	1 060	13.6	436	2.3	1 545	5.1	431	2.6	3 594	5.9
Deer Lodge	16	6.7	115	4.9	65	3.7	204	1.3	63	3.7	526	1.6
Fallon	114	16.7	602	9.9	301	1.2	738	8.3	294	2.2	2 129	5.3
Fergus	244	7.1	2 637	9.0	776	1.8	2 958	2.4	788	1.7	6 996	3.6
Flathead	142	16.2	595	10.1	795	1.6	1 619	9.5	714	3.3	2 696	9.6
Gallatin	290	8.4	2 779	5.4	719	2.5	2 004	4.2	745	2.0	6 227	2.1
Garfield	80	11.2	1 050	.6	236	5.2	1 083	3.7	261	1.0	2 958	3.7
Glacier	187	12.3	3 211	11.9	347	4.5	1 291	3.7	349	4.2	4 096	3.0
Golden Valley	56	7.7	641	4.1	115	2.2	353	3.8	121	2.0	961	3.4
Granite	41	10.1	263	7.0	136	1.8	451	3.0	128	2.6	1 162	3.1
Hill	155	12.0	1 929	14.7	582	3.4	2 631	4.0	623	1.5	5 276	4.1
Jefferson	36	27.8	234	4.3	227	3.6	405	4.7	221	3.4	1 134	3.1
Judith Basin	111	13.3	1 593	17.1	326	1.3	1 292	4.3	327	1.3	3 498	3.1
Lake	243	10.4	1 599	10.5	868	2.8	2 104	5.4	880	2.4	4 328	5.3
Lewis and Clark	75	18.3	429	10.3	410	2.7	1 247	6.5	394	3.5	2 619	5.3
Liberty	102	14.8	1 495	14.4	262	2.1	1 650	5.5	274	.8	3 979	5.8
Lincoln	25	50.3	30	45.9	217	1.7	295	5.6	195	7.0	322	15.1
McCone	123	15.0	1 477	24.5	370	3.9	1 450	5.4	394	2.3	3 748	5.5
Madison	95	13.9	1 020	10.9	394	3.1	1 423	2.9	394	2.9	5 430	6.1
Meagher	41	6.3	720	1.7	130	1.8	630	1.8	128	3.0	2 520	1.9
Mineral	12	8.8	21	11.7	58	4.2	84	4.4	60	4.2	123	2.3
Missoula	108	19.0	412	36.6	419	3.2	778	10.9	398	3.8	925	8.0
Musselshell	71	13.3	1 375	1.5	251	1.3	528	2.1	239	3.6	1 701	3.6
Park	98	17.4	671	7.7	371	1.8	1 044	7.9	361	2.7	2 183	5.9
Petroleum	49	10.3	622	3.2	103	1.2	431	3.4	105	1.2	1 558	4.4
Phillips	149	10.9	1 724	11.2	452	2.7	1 772	3.1	458	2.6	5 409	3.4
Pondera	145	10.5	2 148	11.4	409	4.2	1 716	5.2	436	3.5	4 432	6.2
Powder River	114	10.2	834	5.6	275	3.4	1 329	4.3	286	2.4	3 178	1.2
Powell	79	21.0	518	17.9	223	4.0	945	21.9	216	5.3	2 729	11.0
Prairie	74	7.6	635	4.0	162	1.2	744	5.8	152	3.9	1 968	1.6
Ravalli	214	13.6	708	9.8	906	1.7	1 209	4.1	830	2.9	2 844	4.0
Richland	202	9.1	2 419	9.8	507	3.3	1 790	4.6	545	1.9	4 568	2.5
Roosevelt	210	10.7	2 953	7.3	486	2.6	1 334	5.6	503	2.6	3 923	5.7
Rosebud	148	9.5	2 127	9.5	300	5.8	910	3.9	341	3.0	3 974	2.6
Sanders	54	26.0	202	10.7	337	2.9	628	6.9	304	5.7	1 340	3.3
Sheridan	157	14.8	953	23.2	493	3.1	1 302	5.8	496	2.7	3 590	8.6
Silver Bow	21	21.0	31	29.8	101	3.6	150	4.9	90	4.6	272	4.2
Stillwater	153	13.8	1 276	11.8	411	3.7	1 206	4.8	426	2.8	3 142	4.9
Sweet Grass	111	15.8	656	17.5	274	4.2	917	6.4	290	2.2	2 312	7.4
Teton	182	9.7	3 079	6.2	496	2.9	2 492	4.6	537	1.9	4 813	3.6
Toole	123	11.7	1 762	22.4	328	3.5	1 448	8.3	345	3.0	4 304	5.6
Treasure	52	6.6	776	1.2	100	4.1	505	4.1	108	3.6	1 823	1.3
Valley	284	10.1	2 276	9.5	556	3.5	2 323	5.5	585	2.5	5 367	5.9
Wheatland	60	9.5	711	2.9	144	2.4	655	2.7	143	2.4	2 034	2.9
Wibaux	60	7.9	524	6.9	153	2.7	392	3.7	157	2.6	876	5.0
Yellowstone	358	8.1	2 736	4.0	940	1.9	2 542	3.9	944	2.0	6 764	2.9
Net cash return from agricultural sales for the farm unit (see text) <sup>1</sup>				Total cropland				Harvested cropland				
Geographic area	Farms		Value		Farms		Acres		Farms		Acres	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
<b>Montana</b>	<b>22 824</b>	<b>.9</b>	<b>333 711</b>	<b>1.4</b>	<b>19 442</b>	<b>.9</b>	<b>17 494 553</b>	<b>.4</b>	<b>17 100</b>	<b>.8</b>	<b>8 199 296</b>	<b>.4</b>
Beaverhead	346	.7	13 527	2.8	282	.8	226 793	.3	236	.9	144 355	.3
Big Horn	484	1.9	28 442	2.9	393	2.0	386 561	.8	361	2.1	218 906	.6
Blaine	515	1.6	8 533	10.1	444	1.3	586 725	.7	391	1.2	256 244	.6
Broadwater	205	1.3	2 893	12.6	179	1.2	128 814	1.0	157	1.5	65 737	.9
Carbon	599	1.3	9 858	6.5	528	1.3	170 749	1.3	460	1.3	89 241	1.1
Carter	308	.7	6 177	7.5	254	.7	219 869	.8	218	.8	89 170	.5
Cascade	792	1.2	6 774	11.0	647	1.0	497 309	.7	562	1.1	254 290	.5
Chouteau	737	.7	651	(H)	688	.7	1 297 630	.4	614	.7	554 420	.4
Custer	380	1.0	6 908	6.0	306	1.0	189 297	.7	277	1.1	91 981	.4
Daniels	325	1.4	6 852	6.8	307	1.5	(D)	(D)	275	1.5	205 793	.9
Dawson	451	1.1	10 124	5.4	400	1.1	(D)	(D)	381	1.1	206 698	.7
Deer Lodge	70	3.6	659	2.4	59	2.0	25 015	2.1	50	2.5	14 547	1.3
Fallon	302	1.2	5 134	10.8	248	1.3	(D)	(D)	220	1.3	95 307	1.0
Fergus	804	1.2	13 042	7.6	684	1.0	692 452	.6	631	1.0	350 321	.6

See footnotes at end of table.

## 1992 CENSUS OF AGRICULTURE

## APPENDIX C C-19

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Net cash return from agricultural sales for the farm unit (see text) <sup>1</sup>				Total cropland				Harvested cropland			
	Farms		Value		Farms		Acres		Farms		Acres	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
Flathead -----	812	1.0	5 079	10.7	690	1.0	109 009	.9	603	1.1	75 869	.8
Gallatin -----	788	1.0	14 797	4.4	659	.9	258 593	.8	577	1.0	157 782	.7
Garfield -----	263	1.0	5 483	10.1	186	.7	300 003	.3	166	.7	118 333	.4
Glacier -----	377	2.3	6 380	9.7	301	2.1	534 879	.9	264	2.1	251 870	.8
Golden Valley -----	121	2.0	2 937	6.8	98	1.4	87 810	1.7	89	1.5	34 746	.9
Granite -----	138	1.8	2 239	7.5	112	1.4	51 647	1.3	96	1.7	30 732	.9
Hill -----	642	.9	2 108	57.5	589	1.1	1 114 259	.6	529	1.1	467 994	.6
Jefferson -----	236	1.0	1 763	9.1	199	1.1	73 204	1.0	155	1.5	31 729	.7
Judith Basin -----	328	1.3	6 019	11.3	280	1.4	280 291	.9	257	1.4	159 838	.7
Lake -----	949	1.1	6 991	8.4	841	1.2	148 164	1.2	719	1.3	80 614	1.2
Lewis and Clark -----	437	1.2	3 470	12.3	354	1.3	95 418	1.0	304	1.4	55 277	.9
Liberty -----	274	.8	5 931	13.8	258	.7	622 327	.4	247	.7	286 085	.4
Lincoln -----	218	1.7	214	(H)	189	1.3	13 779	1.9	156	1.6	8 219	2.4
McCone -----	415	.8	7 405	10.6	373	.9	533 266	.6	337	.9	239 962	.6
Madison -----	418	1.1	6 169	5.6	353	.9	166 156	.9	298	1.1	94 767	.6
Meagher -----	134	1.3	3 477	3.7	101	1.2	103 414	.4	93	1.2	70 950	.4
Mineral -----	67	4.0	10	(H)	48	2.7	6 230	4.3	38	3.6	2 836	6.4
Missoula -----	450	1.4	615	(H)	367	1.3	47 448	2.5	287	1.5	22 845	.2
Musselshell -----	253	1.3	1 028	32.6	183	1.5	148 763	1.4	149	1.7	67 984	.8
Park -----	385	.8	3 808	18.0	326	.9	146 987	.9	279	1.0	69 419	.7
Petroleum -----	105	1.2	3 099	8.8	83	.8	99 031	.4	69	.8	35 057	.4
Phillips -----	479	1.0	8 063	6.9	415	1.1	597 485	.6	369	1.1	236 845	.5
Pondera -----	463	1.2	708	96.1	428	.9	587 103	.6	391	1.0	268 545	.6
Powder River -----	295	.8	5 756	10.6	237	.9	166 349	.6	208	.9	79 923	.5
Powell -----	234	1.4	2 646	12.4	189	1.3	84 565	1.0	161	1.5	58 510	.9
Prairie -----	165	1.2	3 538	5.1	152	1.0	(D)	(D)	136	1.1	55 734	.9
Ravalli -----	938	1.1	1 982	25.9	797	1.1	84 869	1.3	630	1.2	40 429	1.0
Richland -----	563	1.2	14 808	4.9	488	1.2	518 001	.8	450	1.2	256 002	.7
Roosevelt -----	525	1.5	8 627	10.7	495	1.5	735 237	.8	460	1.5	334 212	.7
Rosebud -----	357	.9	11 241	7.1	274	1.0	223 940	.6	243	1.1	125 429	.6
Sanders -----	347	1.2	2 489	12.5	292	1.1	54 699	1.9	256	1.3	31 176	1.4
Sheridan -----	526	1.2	8 850	10.2	486	1.2	624 832	.9	447	1.2	275 704	.8
Silver Bow -----	106	2.5	490	11.1	67	2.9	11 545	4.1	48	3.5	5 559	1.7
Stillwater -----	446	1.4	5 504	10.3	368	1.1	283 244	.9	333	1.2	128 528	.6
Sweet Grass -----	296	1.2	4 295	8.3	223	1.2	95 195	1.1	194	1.3	52 028	.7
Teton -----	556	.8	6 772	10.5	495	.7	610 236	.5	462	.8	297 523	.5
Toole -----	358	1.1	5 314	15.1	319	1.1	(D)	(D)	291	1.1	270 204	.5
Treasure -----	113	2.6	3 780	3.0	88	1.6	42 021	.9	80	1.7	29 709	.5
Valley -----	623	1.4	7 908	9.7	562	1.5	750 359	.9	493	1.4	309 203	.8
Wheatland -----	146	2.0	6 406	3.6	116	1.3	146 452	.6	104	1.4	88 372	.4
Wibaux -----	165	1.8	2 010	6.8	147	1.3	140 917	1.0	126	1.6	63 291	1.0
Yellowstone -----	995	.9	13 929	4.7	795	1.0	395 356	.7	673	1.0	192 452	.5
Irrigated land					Livestock and poultry							
Geographic area	Farms		Acres		Cattle and calves inventory				Beef cows inventory			
					Farms		Total		Farms		Total	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
<b>Montana -----</b>	<b>8 883</b>	<b>.8</b>	<b>1 978 167</b>	<b>.4</b>	<b>13 813</b>	<b>.8</b>	<b>2 645 916</b>	<b>.3</b>	<b>12 366</b>	<b>.8</b>	<b>1 506 445</b>	<b>.3</b>
Beaverhead -----	267	.9	256 862	.2	253	.9	155 850	.2	234	.9	84 303	.3
Big Horn -----	201	2.5	66 762	1.2	355	2.0	144 749	.4	331	2.1	77 927	.5
Blaine -----	175	1.8	48 690	1.1	327	1.3	71 797	.5	307	1.3	44 424	.5
Broadwater -----	143	1.6	45 691	1.3	130	1.8	22 578	1.0	125	1.8	13 582	1.0
Carbon -----	438	1.3	77 584	1.1	415	1.4	60 260	.9	370	1.5	29 126	1.2
Carter -----	19	3.5	6 328	1.3	235	.8	51 324	.4	229	.8	32 033	.4
Cascade -----	243	1.8	37 754	1.3	486	1.2	79 394	.6	429	1.2	49 357	.7
Chouteau -----	51	2.2	7 450	2.3	279	1.1	44 821	.7	264	1.1	29 567	.7
Custer -----	183	1.7	36 085	.7	277	1.2	90 125	.3	253	1.2	45 197	.5
Daniels -----	11	5.4	649	1.7	120	1.9	13 766	1.1	113	2.0	8 706	1.0
Dawson -----	91	2.4	15 482	1.4	295	1.2	41 314	.8	280	1.3	24 142	.9
Deer Lodge -----	56	2.1	20 233	1.3	53	2.3	7 154	1.0	45	2.6	4 039	1.2
Fallon -----	13	5.6	1 001	1.3	226	1.4	36 943	.8	215	1.4	24 425	.7
Fergus -----	79	2.3	11 150	1.4	592	1.0	103 711	.6	546	1.1	63 742	.5
Flathead -----	252	1.5	34 425	1.2	373	1.4	23 275	.9	276	1.6	10 518	1.2
Gallatin -----	424	1.2	94 547	.8	470	1.1	61 964	.6	360	1.4	30 188	.7
Garfield -----	14	4.5	2 182	1.8	193	.9	43 873	.3	174	1.0	27 855	.3
Glacier -----	65	2.9	23 778	1.6	213	2.6	38 989	1.5	201	2.6	23 345	1.4
Golden Valley -----	49	2.7	10 286	7.5	94	1.4	22 488	.7	92	1.5	(D)	(D)
Granite -----	104	1.5	39 996	.9	110	1.3	26 190	.6	105	1.4	17 264	.7
Hill -----	43	3.9	5 794	1.6	236	1.6	29 927	1.0	214	1.7	19 395	1.2
Jefferson -----	127	1.7	31 333	.5	156	1.4	23 169	.6	137	1.5	14 442	.7
Judith Basin -----	43	3.0	5 321	3.8	249	1.5	59 592	.7	232	1.5	36 532	.8
Lake -----	682	1.4	92 087	1.3	552	1.5	60 147	1.3	480	1.6	34 245	1.3
Lewis and Clark -----	291	1.5	39 798	1.4	234	1.6	40 848	1.0	190	1.8	22 885	.9
Liberty -----	15	4.2	6 786	2.4	81	1.8	17 423	1.0	77	1.9	10 738	1.1
Lincoln -----	84	2.6	4 233	3.9	127	1.9	4 852	2.2	99	2.3	3 110	2.7
McCone -----	39	3.5	8 336	3.1	225	1.2	34 095	.5	210	1.2	21 422	.5
Madison -----	331	1.0	107 507	.7	312	1.0	87 856	.4	276	1.1	52 147	.5

See footnotes at end of table.

## C-20 APPENDIX C

## 1992 CENSUS OF AGRICULTURE

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Irrigated land				Livestock and poultry							
	Farms		Acres		Cattle and calves inventory				Beef cows inventory			
					Farms		Total		Farms		Total	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
Meagher -----	80	1.3	38 004	.6	103	1.2	52 805	.3	99	1.2	(D)	(D)
Mineral -----	34	4.1	1 342	4.5	29	4.7	1 210	3.8	24	5.1	633	3.4
Missoula -----	285	1.5	22 161	2.2	232	1.7	16 193	1.8	187	2.0	9 169	1.9
Musselshell -----	60	2.7	9 911	1.9	185	1.5	30 109	.7	168	1.6	18 497	.7
Park -----	260	1.1	57 309	.8	266	1.0	48 932	.7	240	1.1	30 785	.7
Petroleum -----	43	1.2	12 698	.5	85	1.1	28 610	.3	81	1.2	19 361	.2
Phillips -----	186	1.8	42 443	1.5	327	1.1	80 891	.4	293	1.2	44 740	.5
Pondera -----	197	1.5	56 396	1.2	219	1.4	24 617	1.0	209	1.5	16 432	1.1
Powder River -----	45	2.9	9 005	1.5	238	.9	70 262	.4	226	.9	41 160	.5
Powell -----	150	1.6	55 924	.8	164	1.5	49 590	.6	151	1.6	(D)	(D)
Prairie -----	52	2.3	11 681	1.1	126	1.2	35 839	.5	119	1.2	18 981	.6
Ravalli -----	817	1.0	65 717	.9	536	1.3	42 367	1.0	431	1.4	22 138	1.0
Richland -----	193	1.7	39 716	.8	327	1.4	52 576	.7	294	1.4	27 166	.7
Roosevelt -----	44	3.6	7 171	2.4	228	1.6	25 192	.9	220	1.6	16 030	.8
Rosebud -----	121	1.9	28 993	1.0	281	1.0	91 730	.3	264	1.1	49 084	.3
Sanders -----	137	2.0	18 856	3.3	248	1.3	25 010	1.1	225	1.4	15 263	1.1
Sheridan -----	25	4.2	4 569	3.8	213	1.9	17 650	1.4	204	1.9	12 447	1.4
Silver Bow -----	44	3.9	8 101	2.6	60	3.0	8 821	2.5	56	3.2	5 850	2.0
Stillwater -----	189	1.7	27 264	1.8	364	1.1	52 036	.6	336	1.2	31 331	.7
Sweet Grass -----	183	1.4	47 820	1.0	232	1.1	50 174	.6	218	1.2	30 300	.6
Teton -----	277	1.2	109 758	.6	287	1.2	66 200	.4	268	1.2	40 209	.5
Toole -----	17	3.9	2 021	2.9	126	1.8	17 636	1.1	122	1.8	11 730	1.1
Treasure -----	61	1.9	21 936	.5	90	1.4	31 210	.4	81	1.6	13 567	.6
Valley -----	185	1.9	36 999	1.3	327	1.5	60 144	.6	302	1.5	38 150	.6
Wheatland -----	64	1.9	29 514	.4	109	1.3	34 927	.4	104	1.4	20 785	.5
Wibaux -----	10	5.4	1 467	16.2	125	1.6	20 279	.8	111	1.8	11 157	.9
Yellowstone -----	591	1.1	73 261	.7	618	1.1	112 432	.4	469	1.2	35 458	.7
Livestock and poultry —Con.												
Geographic area	Milk cows inventory				Hogs and pigs inventory				Sheep and lambs inventory			
	Farms		Total		Farms		Total		Farms		Total	
					Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
<b>Montana</b> -----	<b>1 092</b>	<b>1.0</b>	<b>22 409</b>	<b>.4</b>	<b>1 056</b>	<b>1.3</b>	<b>222 966</b>	<b>.5</b>	<b>2 507</b>	<b>1.1</b>	<b>634 361</b>	<b>.5</b>
Beaverhead -----	20	3.3	65	1.3	9	10.0	367	15.7	54	2.9	20 901	.6
Big Horn -----	18	7.4	64	20.0	19	6.4	9 683	1.1	39	5.1	6 294	4.1
Blaine -----	19	5.7	76	24.1	28	5.3	5 100	2.9	65	3.9	13 529	2.0
Broadwater -----	5	11.0	6	14.5	11	9.3	2 066	12.7	19	5.9	8 200	2.5
Carbon -----	25	5.7	223	7.8	15	8.1	912	11.3	120	2.9	15 289	4.1
Carter -----	36	2.8	62	3.2	12	6.3	1 115	5.9	125	1.3	94 474	.4
Cascade -----	27	5.3	980	2.0	31	5.4	15 073	.7	76	3.2	14 147	1.7
Chouteau -----	9	5.4	48	11.1	35	3.7	8 814	2.1	27	4.0	2 500	2.7
Custer -----	26	5.4	64	8.4	15	7.6	1 188	7.6	56	3.4	11 903	2.5
Daniels -----	3	17.2	7	21.3	14	6.7	4 669	1.8	21	5.9	2 176	5.7
Dawson -----	26	4.6	454	1.0	26	5.1	2 224	9.2	33	4.6	6 005	3.0
Deer Lodge -----	7	8.5	10	13.1	—	—	—	—	5	11.8	630	12.6
Fallon -----	12	6.7	97	1.1	32	4.8	2 846	9.9	37	4.1	6 945	5.8
Fergus -----	38	3.1	486	5.0	36	4.0	6 771	1.3	104	2.8	11 052	3.0
Flathead -----	46	4.1	1 898	.7	55	3.6	8 813	1.3	44	5.0	1 619	5.2
Gallatin -----	67	2.2	5 339	.6	32	4.8	3 652	3.4	85	3.1	8 576	4.5
Garfield -----	22	—	94	—	7	7.1	402	.4	82	1.5	81 967	.5
Glacier -----	9	9.4	318	.6	19	6.9	13 804	.4	15	10.0	1 783	8.8
Golden Valley -----	3	12.9	(D)	(D)	7	11.6	1 773	9.8	18	6.4	11 577	2.0
Granite -----	7	9.8	17	8.1	4	11.7	(D)	(D)	9	7.1	890	7.3
Hill -----	12	6.6	210	1.1	24	4.6	13 199	.9	18	7.2	993	3.7
Jefferson -----	22	5.6	219	9.3	13	7.8	1 629	2.4	20	6.5	1 110	9.8
Judith Basin -----	19	6.8	118	1.4	9	11.1	858	11.9	57	3.9	10 227	3.5
Lake -----	75	3.1	2 238	1.1	28	5.8	3 849	4.6	60	3.8	6 630	4.4
Lewis and Clark -----	11	9.3	227	1.8	13	8.4	2 046	2.7	36	5.1	8 503	2.1
Liberty -----	7	4.6	443	.1	17	4.9	13 182	1.9	7	10.7	707	14.3
Lincoln -----	20	6.4	38	6.8	15	7.2	828	19.7	9	11.0	323	14.7
McCone -----	22	4.1	62	3.2	27	4.3	1 735	4.0	42	3.2	21 519	1.0
Madison -----	18	5.0	32	3.7	21	5.3	2 058	4.8	84	2.8	17 655	3.0
Meagher -----	5	7.7	(D)	(D)	4	—	(D)	(D)	12	—	6 461	—
Mineral -----	—	—	—	—	1	33.1	(D)	(D)	8	11.0	545	12.0
Missoula -----	13	8.6	40	11.5	17	6.9	369	22.8	42	4.5	1 901	5.6
Musselshell -----	18	6.1	40	4.6	8	9.7	1 398	5.9	39	4.4	18 894	2.3
Park -----	25	4.7	278	1.4	16	6.7	1 385	3.9	51	3.7	6 110	6.9
Petroleum -----	8	3.9	15	2.1	1	—	(D)	(D)	19	4.5	4 725	2.6
Phillips -----	21	5.5	54	5.2	30	3.8	5 356	1.7	50	3.9	15 551	2.0
Pondera -----	10	5.8	401	.1	21	6.0	13 800	1.5	32	5.5	6 147	5.1
Powder River -----	26	3.9	81	2.1	10	9.1	944	19.5	69	2.5	25 386	1.4
Powell -----	14	7.6	(D)	(D)	13	7.8	912	5.0	42	4.6	2 623	5.6

See footnotes at end of table.

## 1992 CENSUS OF AGRICULTURE

## APPENDIX C C-21

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Livestock and poultry —Con.										
	Milk cows inventory				Hogs and pigs inventory				Sheep and lambs inventory		
	Farms		Total		Farms		Total		Farms		Total
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Relative standard error of estimate (percent)
Prairie -----	10	6.5	25	4.3	6	8.3	518	.2	16	3.7	6 450 5.2
Ravalli -----	52	3.6	2 487	.8	44	4.6	1 555	5.9	89	3.3	5 729 4.9
Richland -----	25	4.7	104	3.7	32	5.9	3 894	2.0	58	4.2	9 965 4.3
Roosevelt -----	9	7.2	21	7.9	40	4.7	2 964	5.5	29	5.2	11 942 2.3
Rosebud -----	26	4.7	103	6.9	13	6.6	1 695	4.0	36	4.0	14 878 1.6
Sanders -----	16	6.2	281	.4	14	8.9	511	19.5	12	8.2	385 9.6
Sheridan -----	10	11.9	30	19.7	36	5.6	3 942	5.5	41	4.7	5 128 5.7
Silver Bow -----	4	13.1	6	12.1	5	14.7	45	19.5	6	13.1	378 10.5
Stillwater -----	20	4.8	217	1.2	21	3.8	6 584	.7	86	2.8	19 482 2.7
Sweet Grass -----	24	5.5	46	5.5	15	6.9	3 534	3.2	89	2.6	20 261 2.9
Teton -----	14	7.2	536	3.8	15	6.0	10 891	.5	53	3.3	11 546 2.2
Toole -----	15	5.9	189	.6	17	6.7	11 844	3.2	24	5.8	2 185 4.7
Treasure -----	4	—	7	—	5	5.4	139	2.2	5	8.4	441 14.3
Valley -----	22	5.6	146	2.0	36	5.0	2 006	4.9	48	4.5	6 183 6.4
Wheatland -----	11	6.0	311	.4	10	6.2	10 062	.3	48	2.4	29 589 1.1
Wibaux -----	11	8.4	225	13.9	16	8.1	617	9.6	12	7.4	2 747 6.3
Yellowstone -----	48	4.0	2 286	1.3	36	4.9	641	5.4	124	2.7	10 605 3.7
Geographic area	Livestock and poultry —Con.										
	Hens and pullets of laying age inventory				Broilers and other meat-type chickens sold						
	Farms		Total		Farms		Total				
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Relative standard error of estimate (percent)
<b>Montana</b>	<b>1 127</b>	<b>1.3</b>	<b>555 953</b>	<b>.4</b>	<b>47</b>	<b>4.1</b>	<b>47 505</b>	<b>.5</b>			
Beaverhead -----	7	8.6	268	7.3	—	—	—	—	—	—	—
Big Horn -----	17	8.4	752	7.8	1	49.1	(D)	(D)			
Blaine -----	16	5.5	2 572	.7	—	—	—	—	—	—	—
Broadwater -----	4	9.9	(D)	(D)	—	—	—	—	—	—	—
Carbon -----	30	6.2	488	7.4	2	16.7	(D)	(D)			
Carter -----	23	4.4	370	4.8	—	—	—	—	—	—	—
Cascade -----	46	4.3	37 945	.4	2	18.4	(D)	(D)			
Chouteau -----	19	4.8	586	5.2	1	35.2	(D)	(D)			
Custer -----	27	6.1	632	6.7	—	—	—	—	—	—	—
Daniels -----	9	10.9	329	12.4	—	—	—	—	—	—	—
Dawson -----	18	6.3	600	8.7	—	—	—	—	—	—	—
Deer Lodge -----	1	41.0	(D)	(D)	—	—	—	—	—	—	—
Fallon -----	20	6.2	654	10.4	—	—	—	—	—	—	—
Fergus -----	26	5.9	3 167	1.1	2	—	(D)	(D)			
Flathead -----	64	4.0	6 883	.7	1	31.5	(D)	(D)			
Gallatin -----	37	5.3	(D)	(D)	1	34.2	(D)	(D)			
Garfield -----	12	6.6	477	5.9	—	—	—	—	—	—	—
Glacier -----	11	9.9	33 615	.1	3	—	12 900	—	—	—	—
Golden Valley -----	6	16.2	89	19.4	—	—	—	—	—	—	—
Granite -----	2	—	(D)	(D)	—	—	—	—	—	—	—
Hill -----	16	7.7	(D)	(D)	—	—	—	—	—	—	—
Jefferson -----	15	7.7	424	12.8	1	38.3	(D)	(D)			
Judith Basin -----	9	9.4	187	10.7	—	—	(D)	(D)			
Lake -----	47	4.7	848	9.5	1	31.2	(D)	(D)			
Lewis and Clark -----	27	5.9	(D)	(D)	—	—	—	—	—	—	—
Liberty -----	6	7.2	27 388	(L)	1	—	(D)	(D)			
Lincoln -----	21	6.7	666	9.7	—	—	(D)	(D)			
McCone -----	24	4.6	500	5.0	1	—	(D)	(D)			
Madison -----	22	7.0	370	6.9	—	—	(D)	(D)			
Meagher -----	7	—	(D)	(D)	1	—	(D)	(D)			
Mineral -----	—	—	—	—	—	—	—	—	—	—	—
Missoula -----	32	5.2	788	13.4	4	14.7	354	27.2			
Musselshell -----	19	6.6	715	3.7	—	—	—	—	—	—	—
Park -----	26	5.6	1 030	9.7	2	17.8	(D)	(D)			
Petroleum -----	2	—	(D)	(D)	—	—	—	—	—	—	—
Phillips -----	25	5.6	1 052	2.7	1	—	(D)	(D)			
Pondera -----	16	7.6	(D)	(D)	1	—	(D)	(D)			
Powder River -----	16	5.3	259	4.2	—	—	—	—	—	—	—
Powell -----	19	7.2	383	10.8	4	19.3	108	22.7			
Prairie -----	15	5.2	628	2.6	1	—	(D)	(D)			
Ravalli -----	79	3.6	2 282	12.4	3	16.5	(D)	(D)			
Richland -----	21	7.0	624	7.7	3	19.0	182	20.0			
Roosevelt -----	18	8.1	937	14.7	2	22.3	(D)	(D)			
Rosebud -----	21	5.8	483	7.3	—	—	—	—	—	—	—
Sanders -----	38	4.9	2 241	11.5	2	20.0	(D)	(D)			
Sheridan -----	15	8.5	591	10.8	—	—	(D)	(D)			
Silver Bow -----	5	13.5	74	17.3	1	43.9	(D)	(D)			
Stillwater -----	24	5.6	(D)	(D)	1	—	(D)	(D)			
Sweet Grass -----	26	6.0	1 470	26.4	—	—	—	—	—	—	—

See footnotes at end of table.

## C-22 APPENDIX C

## 1992 CENSUS OF AGRICULTURE

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Livestock and poultry —Con.											
	Hens and pullets of laying age inventory					Broilers and other meat-type chickens sold						
	Farms		Total			Farms		Total			Relative standard error of estimate (percent)	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Number	Relative standard error of estimate (percent)	Number	Number	Relative standard error of estimate (percent)		
Teton -----	12	7.6	29 458	(L)	1	—	—	(D)	(D)	(D)		
Toole -----	16	5.6	(D)	(D)	—	—	—	—	—	—		
Treasure -----	7	8.2	114	6.1	—	—	—	—	—	—		
Valley -----	23	5.9	636	10.0	1	35.1	(D)	(D)	(D)	(D)		
Wheatland -----	9	5.2	28 369	(L)	1	—	—	(D)	(D)	(D)		
Wibaux -----	9	9.7	321	13.6	—	—	—	—	—	—		
Yellowstone -----	45	5.1	875	5.3	1	40.9	(D)	(D)	(D)	(D)		
Selected crops harvested												
Geographic area	Corn for silage or green chop					Wheat for grain						
	Farms		Acres		Quantity	Farms		Acres		Quantity		
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Tons, green	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Bushels	Relative standard error of estimate (percent)	
<b>Montana</b>	<b>489</b>	<b>.8</b>	<b>42 337</b>	<b>.5</b>	<b>761 758</b>	<b>.5</b>	<b>8 395</b>	<b>.8</b>	<b>4 885 520</b>	<b>.4</b>	<b>142 893 032</b>	<b>.4</b>
Beaverhead -----	—	—	—	—	—	—	33	1.5	12 708	1.0	681 936	.8
Big Horn -----	21	4.2	4 415	.6	91 509	.7	172	2.1	116 519	.5	4 055 554	.5
Blaine -----	7	5.2	270	4.7	4 476	2.9	239	1.3	181 991	.6	4 953 934	.7
Broadwater -----	—	—	—	—	—	—	78	2.1	31 467	.9	1 432 436	1.0
Carbon -----	54	2.5	3 192	1.8	61 688	1.7	89	2.4	14 461	2.2	542 777	2.1
Carter -----	1	(D)	(D)	(D)	(D)	(D)	79	1.6	35 222	.7	1 032 568	.5
Cascade -----	4	7.7	386	1.0	4 350	.2	268	1.4	134 940	.7	3 871 400	.6
Chouteau -----	1	—	(D)	(D)	(D)	(D)	559	.7	425 081	.4	10 452 132	.4
Custer -----	33	2.1	3 308	.8	60 071	1.2	105	1.3	38 579	.6	1 366 668	.4
Daniels -----	—	—	—	—	—	—	259	1.6	183 482	1.0	5 971 039	1.0
Dawson -----	23	3.9	2 215	2.1	32 171	2.5	276	1.3	144 299	.8	5 073 889	.8
Deer Lodge -----	—	—	—	—	—	—	3	—	1 408	—	51 750	—
Fallon -----	—	—	—	—	—	—	124	1.7	49 861	1.4	1 603 609	1.6
Fergus -----	—	—	—	—	—	—	364	1.2	160 337	.6	4 685 820	.7
Flathead -----	3	—	48	—	600	—	121	2.1	13 601	1.5	878 060	1.3
Gallatin -----	1	34.2	(D)	(D)	(D)	(D)	240	1.4	48 216	1.0	2 757 054	.9
Garfield -----	2	—	(D)	(D)	(D)	(D)	117	.8	88 263	.5	2 558 428	.6
Glacier -----	—	—	—	—	—	—	168	2.2	141 448	.9	4 321 102	.8
Golden Valley -----	2	—	(D)	(D)	(D)	(D)	42	2.5	16 851	1.6	499 348	1.7
Granite -----	—	—	—	—	—	—	3	11.2	(D)	(D)	(D)	(D)
Hill -----	1	—	(D)	(D)	(D)	(D)	481	1.1	422 612	.6	7 912 160	.6
Jefferson -----	—	—	—	—	—	—	19	3.9	6 665	1.1	237 893	.8
Judith Basin -----	1	—	(D)	(D)	(D)	(D)	151	1.7	68 819	.8	1 968 293	.8
Lake -----	4	7.8	148	4.2	2 650	3.5	115	2.3	16 530	1.9	835 256	1.5
Lewis and Clark -----	—	—	—	—	—	—	33	4.7	12 666	2.0	337 518	2.3
Liberty -----	—	—	—	—	—	—	232	.8	254 163	.4	6 026 122	.4
Lincoln -----	—	—	—	—	—	—	2	29.8	(D)	(D)	(D)	(D)
McCone -----	4	12.3	332	25.9	(D)	(D)	296	1.0	192 786	.7	6 177 913	.6
Madison -----	—	—	—	—	—	—	39	2.6	7 996	1.2	380 581	1.4
Meagher -----	—	—	—	—	—	—	19	—	11 910	—	520 953	—
Mineral -----	—	—	—	—	—	—	4	14.4	722	24.7	37 910	25.1
Missoula -----	—	—	—	—	—	—	16	7.3	2 392	7.0	74 689	6.2
Musselshell -----	10	—	448	—	6 665	—	42	3.1	45 347	1.0	1 096 288	1.0
Park -----	—	—	—	—	—	—	58	2.5	14 519	1.4	606 921	1.4
Petroleum -----	1	—	(D)	(D)	(D)	(D)	25	2.5	15 244	.4	397 588	.3
Phillips -----	3	—	696	—	(D)	(D)	236	1.3	146 815	.7	3 890 374	.7
Pondera -----	—	—	—	—	—	—	316	1.1	157 444	.7	3 932 494	.7
Powder River -----	4	—	295	—	3 770	—	76	1.5	28 184	.6	832 283	.6
Powell -----	—	—	—	—	—	—	13	3.5	3 698	1.4	117 757	.8
Prairie -----	28	1.8	1 908	1.2	31 933	1.2	81	1.4	29 531	1.4	1 031 955	1.0
Ravalli -----	2	—	(D)	(D)	(D)	(D)	26	4.6	2 119	5.2	105 796	2.6
Richland -----	78	1.4	4 808	.8	80 496	.9	346	1.2	163 028	.8	5 852 484	.7
Roosevelt -----	5	10.1	222	9.8	1 655	3.9	394	1.5	283 482	.7	9 322 582	.7
Rosebud -----	15	4.4	3 158	1.1	34 475	1.9	96	2.0	58 207	.8	2 106 578	.8
Sanders -----	—	—	—	—	—	—	22	5.4	3 110	4.3	136 527	3.3
Sheridan -----	2	17.3	(D)	(D)	(D)	(D)	394	1.3	233 620	.9	8 424 300	.8
Silver Bow -----	—	—	—	—	—	—	—	—	—	—	—	—
Stillwater -----	15	4.3	1 672	4.3	33 657	4.2	137	1.7	58 504	1.0	1 890 333	1.0
Sweet Grass -----	1	—	(D)	(D)	(D)	(D)	32	3.9	7 380	1.4	258 636	1.1
Teton -----	—	—	—	—	—	—	273	1.0	147 269	.7	3 239 457	.6
Toole -----	—	—	—	—	—	—	267	1.1	215 574	.6	5 122 632	.6
Treasure -----	23	1.8	2 956	.2	64 049	.3	36	1.9	6 398	.3	362 040	2
Valley -----	4	—	340	—	1 867	—	401	1.4	251 140	.8	6 659 803	.8
Wheatland -----	—	—	—	—	—	—	54	2.0	38 561	.7	1 337 138	.7
Wibaux -----	8	4.8	485	4.0	4 275	1.8	90	2.0	39 031	1.2	1 204 558	1.2
Yellowstone -----	128	1.4	10 344	.9	212 528	.9	234	1.3	100 589	.8	3 643 196	.7

See footnotes at end of table.

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Selected crops harvested —Con.											
	Barley for grain								Oats for grain			
	Farms		Acres		Quantity		Farms		Acres		Quantity	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Bushels	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Bushels	Relative standard error of estimate (percent)
<b>Montana</b>	<b>5 971</b>	.7	<b>1 168 663</b>	.3	<b>47 381 536</b>	.3	<b>1 590</b>	.8	<b>82 492</b>	.6	<b>4 485 707</b>	.7
Beaverhead	40	1.2	7 241	.5	552 694	.6	6	—	935	—	59 612	—
Big Horn	131	2.1	23 033	1.1	1 298 397	1.2	53	3.8	2 137	5.2	164 485	6.5
Blaine	143	1.5	28 182	.9	1 179 510	.8	43	2.9	2 567	2.3	110 362	2.2
Broadwater	59	2.8	8 667	2.3	496 151	2.0	17	6.1	791	11.5	55 770	10.4
Carbon	143	2.0	11 246	1.5	848 763	1.5	65	3.3	1 610	3.7	127 717	3.8
Carter	34	2.2	4 102	.9	143 358	.7	33	2.0	2 471	1.4	102 876	.7
Cascade	201	1.5	56 335	.6	1 572 251	.8	42	3.8	1 271	4.9	55 456	5.0
Chouteau	350	.9	103 334	.6	2 093 977	.6	26	3.0	1 614	1.1	55 956	1.1
Custer	44	1.7	3 461	.4	158 980	.4	25	2.2	1 480	1.6	66 258	1.9
Daniels	97	2.4	12 717	1.2	465 916	1.3	26	3.4	1 677	1.0	80 522	.9
Dawson	182	1.5	22 682	1.2	1 049 669	1.1	69	1.9	4 228	1.7	229 280	1.7
Deer Lodge	9	5.4	1 273	1.7	100 940	1.7	2	—	(D)	(D)	(D)	(D)
Fallon	80	2.3	6 873	1.8	263 835	1.7	39	3.0	1 908	2.2	82 329	2.4
Fergus	319	1.2	86 869	.8	2 644 686	.8	62	2.0	3 174	2.2	131 039	3.2
Flathead	198	1.7	24 248	1.3	1 712 080	1.1	33	5.0	934	8.2	54 165	8.6
Gallatin	258	1.4	39 688	.9	2 619 727	1.0	33	4.2	1 151	3.6	96 080	3.3
Garfield	59	.7	9 750	.3	349 144	.3	36	1.8	3 438	.4	150 835	.3
Glacier	154	2.0	80 996	.8	3 198 921	.8	19	4.4	1 437	2.2	77 378	1.6
Golden Valley	25	3.5	3 015	2.0	96 059	1.2	16	5.1	535	6.0	29 770	7.0
Granite	12	4.8	929	7.3	52 045	6.5	4	—	100	—	6 600	—
Hill	197	1.4	31 013	.7	883 984	.6	20	3.0	1 669	1.5	67 170	.2
Jefferson	20	2.5	3 341	2.8	168 867	1.3	12	3.5	490	2.5	32 609	1.7
Judith Basin	141	1.6	40 697	.9	1 321 183	.8	43	3.3	2 761	1.5	125 987	2.0
Lake	109	2.2	8 446	2.0	505 200	1.5	56	3.5	2 271	2.8	166 433	2.8
Lewis and Clark	49	4.4	7 814	1.7	342 977	1.8	18	5.8	779	4.6	69 243	5.2
Liberty	102	1.3	24 556	.8	862 127	.7	5	—	412	—	22 730	—
Lincoln	7	10.2	162	3.5	7 598	5.1	6	12.9	130	14.6	4 085	17.9
McCone	161	1.3	20 524	1.2	822 725	1.3	47	1.9	3 245	.8	167 431	.7
Madison	65	2.1	7 148	2.4	506 249	2.5	22	3.8	1 083	3.3	89 093	2.3
Meagher	28	1.4	15 454	.2	798 632	.2	9	—	1 079	—	80 097	—
Mineral	3	12.4	98	7.6	7 400	7.1	3	—	(D)	(D)	(D)	(D)
Missoula	20	5.8	1 743	8.2	72 604	7.6	18	6.2	822	10.5	51 479	7.4
Musselshell	25	4.0	3 330	2.2	71 106	3.2	23	3.4	886	2.0	54 160	2.3
Park	73	2.1	9 054	1.4	460 994	1.2	21	3.5	838	2.2	58 110	2.2
Petroleum	8	—	561	—	10 070	—	6	5.2	331	18.6	8 407	14.7
Phillips	160	1.4	30 768	.8	1 001 305	.9	42	2.1	2 775	1.9	128 011	2.4
Pondera	285	1.1	86 398	.6	3 228 928	.6	12	7.6	395	5.4	14 928	4.2
Powder River	35	1.5	3 020	.7	108 440	.9	34	1.8	1 187	1.5	53 466	1.3
Powell	30	3.3	2 453	2.6	122 143	3.1	12	4.6	1 573	1.8	67 655	1.8
Prairie	45	1.7	5 546	1.0	249 325	.7	23	3.6	720	2.6	39 795	2.8
Ravalli	52	3.6	2 694	3.7	159 017	3.1	32	4.3	751	3.8	45 502	4.1
Richland	210	1.5	30 841	1.0	1 426 887	.9	87	2.6	4 718	1.7	311 756	1.8
Roosevelt	202	1.9	23 820	1.3	969 549	1.3	47	3.4	2 728	2.5	135 642	2.6
Rosebud	44	2.9	5 093	.8	244 615	.8	30	3.5	1 533	3.2	97 408	3.8
Sanders	20	4.9	1 089	2.4	46 304	3.0	26	5.1	1 095	2.3	60 373	1.6
Sheridan	180	1.7	21 290	1.2	905 627	1.2	51	3.7	2 146	10.0	100 146	7.7
Silver Bow	—	—	—	—	—	—	3	9.6	108	5.3	(D)	(D)
Stillwater	105	1.8	15 589	1.1	595 694	1.3	22	2.7	839	3.6	43 999	3.0
Sweet Grass	43	3.1	4 375	1.5	167 423	1.2	40	2.9	1 572	3.2	112 193	3.0
Teton	313	1.0	104 571	.5	4 661 135	.6	19	5.5	1 624	7.4	75 108	8.5
Toole	151	1.4	43 326	.9	2 030 777	.7	10	3.2	1 260	7.7	54 142	7.1
Treasure	29	2.8	4 249	.5	369 305	.4	4	—	141	—	8 050	—
Valley	177	1.5	23 870	.8	724 999	.8	50	3.1	2 022	1.9	84 103	2.1
Wheatland	42	2.4	18 056	.4	770 481	.4	13	2.5	1 205	.4	56 040	.5
Wibaux	66	2.1	6 079	1.9	248 965	1.9	32	3.5	1 956	3.8	109 434	4.8
Yellowstone	236	1.2	26 954	.9	1 611 798	.8	43	3.2	1 524	1.9	109 588	1.7

Geographic area	Selected crops harvested —Con.											
	Sugar beets for sugar						Hay —alfalfa, other tame, small grain, wild, grass silage, green chop, etc. (see text)					
	Farms		Acres		Quantity		Farms		Acres		Quantity	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Tons	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Tons, dry	Relative standard error of estimate (percent)
<b>Montana</b>	<b>476</b>	<b>1.0</b>	<b>56 994</b>	<b>.4</b>	<b>1 274 952</b>	<b>.4</b>	<b>12 058</b>	<b>.8</b>	<b>1 983 629</b>	<b>.4</b>	<b>3 670 309</b>	<b>.4</b>
Beaverhead	—	—	—	—	—	—	223	1.0	123 580	.3	244 067	.3
Big Horn	49	3.0	8 226	.8	192 265	.8	271	2.2	64 243	.9	147 709	1.0
Blaine	—	—	—	—	—	—	249	1.5	44 421	.9	77 904	1.2
Broadwater	—	—	—	—	—	—	130	1.7	24 615	1.2	74 557	1.3
Carbon	80	2.2	7 536	1.1	170 046	1.2	411	1.4	49 768	1.4	116 697	1.3
Carter	—	—	—	—	—	—	198	.9	49 783	.8	44 530	1.2
Cascade	—	—	—	—	—	—	429	1.2	64 707	.9	104 339	.9
Chouteau	—	—	—	—	—	—	171	1.4	23 634	1.6	28 621	1.3
Custer	21	3.4	1 600	2.8	37 212	2.8	246	1.2	42 375	.6	86 488	.7

See footnotes at end of table.

## C-24 APPENDIX C

## 1992 CENSUS OF AGRICULTURE

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Selected crops harvested —Con.											
	Sugar beets for sugar						Hay—alfalfa, other tame, small grain, wild, grass silage, green chop, etc. (see text)					
	Farms		Acres		Quantity		Farms		Acres		Quantity	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Tons	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Tons, dry	Relative standard error of estimate (percent)
Daniels -----	—	—	—	—	—	—	95	2.3	8 919	2.4	10 970	2.0
Dawson -----	24	2.6	2 822	.7	57 995	.7	258	1.4	30 697	1.0	44 093	1.3
Deer Lodge -----	—	—	—	—	—	—	49	2.6	10 874	1.6	23 139	1.8
Fallon -----	—	—	—	—	—	—	195	1.5	39 093	1.1	35 155	1.3
Fergus -----	—	—	—	—	—	—	508	1.0	107 741	.8	133 893	.7
Flathead -----	—	—	—	—	—	—	462	1.3	31 016	1.2	62 373	1.2
Gallatin -----	—	—	—	—	—	—	491	1.1	69 456	.9	200 776	.8
Garfield -----	—	—	—	—	—	—	106	1.0	14 727	.7	16 765	.5
Glacier -----	—	—	—	—	—	—	133	2.3	29 719	1.5	40 062	1.0
Golden Valley -----	—	—	—	—	—	—	77	1.7	15 271	.9	25 287	.6
Granite -----	—	—	—	—	—	—	91	1.7	29 261	.8	54 965	.6
Hill -----	—	—	—	—	—	—	116	2.0	13 508	2.2	17 501	1.9
Jefferson -----	—	—	—	—	—	—	141	1.6	21 597	.7	48 612	.7
Judith Basin -----	—	—	—	—	—	—	209	1.6	49 031	1.2	62 995	1.0
Lake -----	—	—	—	—	—	—	500	1.5	51 301	1.4	121 622	1.3
Lewis and Clark -----	—	—	—	—	—	—	269	1.6	34 939	1.0	72 474	1.3
Liberty -----	—	—	—	—	—	—	46	2.6	8 035	1.6	11 715	.8
Lincoln -----	—	—	—	—	—	—	145	1.7	7 972	2.5	13 306	3.7
McCone -----	—	—	—	—	—	—	157	1.4	27 182	.7	40 388	.9
Madison -----	—	—	—	—	—	—	287	1.1	78 875	.6	194 391	.6
Meagher -----	—	—	—	—	—	—	88	1.3	43 246	.6	86 310	.8
Mineral -----	—	—	—	—	—	—	33	4.2	1 963	4.6	4 214	4.0
Missoula -----	—	—	—	—	—	—	261	1.6	18 267	2.3	35 373	2.4
Musselshell -----	—	—	—	—	—	—	130	1.9	19 967	1.0	39 428	1.3
Park -----	—	—	—	—	—	—	261	1.1	45 820	.8	108 607	.7
Petroleum -----	—	—	—	—	—	—	57	.9	18 591	.6	27 290	.7
Phillips -----	—	—	—	—	—	—	258	1.3	57 265	.8	87 278	.9
Pondera -----	—	—	—	—	—	—	199	1.5	24 631	1.6	44 448	1.4
Powder River -----	—	—	—	—	—	—	194	.9	47 935	.7	62 147	.6
Powell -----	—	—	—	—	—	—	157	1.5	51 283	1.0	92 509	.8
Prairie -----	25	2.6	2 874	.8	63 577	.7	105	1.2	14 700	1.9	25 507	2.3
Ravalli -----	—	—	—	—	—	—	576	1.2	34 709	1.0	88 417	1.1
Richland -----	115	2.0	15 321	.8	328 255	.8	301	1.5	37 148	1.1	63 528	1.0
Roosevelt -----	6	7.4	(D)	(D)	(D)	(D)	223	1.7	25 518	1.5	38 012	1.7
Rosebud -----	12	3.2	2 501	.4	60 862	.3	210	1.3	50 706	.9	93 821	.7
Sanders -----	—	—	—	—	—	—	239	1.4	25 638	1.6	45 696	1.6
Sheridan -----	1	—	(D)	(D)	(D)	(D)	218	1.8	19 340	1.8	25 845	2.4
Silver Bow -----	—	—	—	—	—	—	46	3.6	5 500	1.7	12 728	1.7
Stillwater -----	13	5.5	1 167	2.3	24 377	2.0	290	1.3	50 621	.8	80 152	1.0
Sweet Grass -----	—	—	—	—	—	—	183	1.3	39 378	.7	72 874	1.0
Teton -----	—	—	—	—	—	—	260	1.2	46 271	.8	103 504	.6
Toole -----	—	—	—	—	—	—	74	2.2	7 722	3.5	8 189	3.5
Treasure -----	29	2.3	4 847	.4	114 893	.3	66	1.7	9 458	1.2	22 413	.8
Valley -----	—	—	—	—	—	—	251	1.6	33 012	1.3	70 012	1.2
Wheatland -----	—	—	—	—	—	—	84	1.6	31 833	.6	63 315	.4
Wibaux -----	1	—	(D)	(D)	(D)	(D)	106	1.8	17 453	1.4	20 358	1.1
Yellowstone -----	100	1.7	9 037	.6	207 013	.7	525	1.2	39 114	.9	92 940	.9

<sup>1</sup>Data are based on a sample of farms.

**Table G. State Estimates of the Not on the Mail List Component of Farm Coverage Error:  
1992**

[Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text]

Item	Census published farms		Not on mail list <sup>1</sup>		Percent not on mail list <sup>1</sup>	
	Total (number)	Relative standard error of estimate (percent)	Total (number)	Relative standard error of estimate (percent)	Total (percent)	Standard error of percent
Farms ----- number	22 821	.9	1 821	38.8	7.4	2.7
Land in farms ----- acres	59 642 536	.2	558 469	54.3	.9	.5
Average size of farm ----- acres	2 613.5	.9	306.7	56.4	(X)	(X)
Farms by size:						
Less than 10 acres -----	1 209	1.6	676	73.9	35.9	17.0
10 to 49 acres -----	2 804	1.5	566	56.7	16.8	7.9
Less than 50 acres -----	4 013	1.4	1 242	52.1	23.6	9.4
50 acres or more -----	18 808	.9	578	47.6	3.0	1.4
50 to 99 acres -----	1 446	1.6	28	98.3	1.9	1.8
100 to 179 acres -----	1 615	1.6	151	74.8	8.5	5.8
180 acres or more -----	15 747	.8	400	60.8	2.5	1.5
Harvested cropland ----- farms	17 100	.8	1 214	43.6	6.6	2.7
acres	8 199 296	.4	90 540	63.2	1.1	.7
Farms by value of sales:						
Less than \$1,000 -----	2 408	1.5	1 051	51.5	30.4	10.9
\$1,000 to \$2,499 -----	1 665	1.7	426	64.4	20.4	10.5
Less than \$2,500 -----	4 073	1.5	1 477	45.8	26.6	9.0
\$2,500 or more -----	18 748	.9	344	65.4	1.8	1.2
\$2,500 to \$9,999 -----	3 895	1.5	52	(H)	1.3	1.3
\$10,000 or more -----	14 853	.8	291	73.4	1.9	1.4
Market value of agricultural products sold    ---\$1,000 ---	1 730 237	.3	10 650	64.5	.6	.4
Farms by standard industrial classification:						
Crops (01) -----	9 044	.9	646	52.7	6.7	3.3
Livestock (02) -----	13 777	.9	1 175	39.1	7.9	2.8
Farms by type of organization:						
Individual or family -----	17 723	1.0	1 768	39.7	9.1	3.3
Partnership or corporation -----	4 844	.7	—	(X)	—	(X)
Other -----	254	1.9	52	(H)	17.1	14.2
Farms by tenure of operator:						
Full owners -----	10 763	1.1	1 382	41.7	11.4	4.2
Part owners and tenants -----	12 058	.8	439	58.8	3.5	2.0
Part owners -----	9 039	.6	43	72.3	.5	.3
Tenants -----	3 019	1.4	396	60.5	11.6	6.2
Operators by place of residence:						
On farm operated -----	16 982	.8	1 381	47.7	7.5	3.3
Not on farm operated -----	4 103	1.4	220	80.6	5.1	3.9
Not reported -----	1 736	1.0	220	94.4	11.2	9.4
Operators by principal occupation:						
Farming -----	16 006	.8	594	52.3	3.6	1.8
Other -----	6 815	1.4	1 227	47.4	15.3	6.1
Operators by sex:						
Male -----	20 995	.9	1 707	40.8	7.5	2.8
Female -----	1 826	1.3	114	88.5	5.9	4.9
Operators by race:						
White -----	22 356	.9	1 821	38.8	7.5	2.7
Black and other races -----	465	1.9	—	(X)	—	(X)
Operators by years on present farm:						
4 years or less -----	2 695	1.6	276	77.5	9.3	6.5
5 years or more -----	16 631	.8	865	49.6	4.9	2.3
Average years on present farm -----	20.1	1.2	9.1	25.5	(X)	(X)
Not reported -----	3 495	1.0	680	49.9	16.3	6.8
Average age of operator -----	52.9	1.3	45.4	6.8	(X)	(X)

Note: These estimates do not account for incorrectly classified farms or farms appearing more than once in the census and are subject to change in the 1992 Coverage Evaluation publication. See appendix C text for further explanation.

<sup>1</sup>Estimates are based on a sample survey conducted independently of census data collection.